



UNIVERSITY OF
LIVERPOOL

**E-GOVERNMENTS IMPLEMENTABILITY IN DEVELOPING
CONTEXT; A PHASED MODEL APPROACH**

Thesis submitted in accordance with the University of Liverpool for the
degree of doctorate in philosophy

By

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December 2010

ACKNOWLEDGMENT

This thesis owes its existence to the help, support, and inspiration of many people. In the first place, I would like to express my sincere appreciation and gratitude to Dr. Hossein Sharifi for his guidance, support and encouragement during the more than four years of this thesis's work.

I would also thank my second supervisor, Professor Dennis Kehoe, who was abundantly helpful and offered invaluable assistance and support.

I would also wish to express my love and gratitude to my dear parents, my beloved wife, Fatemeh, and my two daughters for their understanding & endless love, through the duration of my studies.

Last but not least, thanks be to God for my life through all tests during my PhD thesis and for the strength that keep me standing.

ABSTRACT

Information and Communication Technology (ICT) has brought new solutions to emerging concepts and circumstances such as globalization, socio-economic development and growth, social structural changes and management issues, and the increasingly complex and multifaceted problems rising as the result of their intersection.

Such clusters of solutions have emerged under headings such as e-government and e-governance. These solutions however have faced difficulties in answering the questions and resolving the problems due to many influential factors including a multi-linguistic and multidisciplinary sphere of theoretical and practical arguments. In this regard new institutionalization theory provides an integrated multi-dimensional instrument to study and get a better perspective of the issues. New-institutionalization factors such path dependency perspective have been employed in this research seeking answer to the question of: how e-government can be implemented in developing countries, where institutional structure and circumstances are not prepared. The aim of this research was to examine, conceptualize and verify a model for implementing e-government, as a modern means into underdeveloped context, using the new-institutionalism theory.

The research was conducted using a mixed research method including: literature analysis; secondary data based quantitative analysis to classify and compare institutionalization and e-government characteristics of 138 countries between 1995-2005; and qualitative method of multiple case studies using interviews with specialists, workshops and questionnaires in Iran, and also an in-depth case study. The study led to the development and proposition of a practical scenario for implementing e-government in developing countries.

The study showed that presence of institutions is a prerequisite for achieving successful implementation of e-government, a factor similarly found for economic development by economists.

The study recommended, based on theoretical induction supported by empirical evidence that in the absence of required institutions and with typical incapability of the state in developing world to produce or compensate them solutions exist and should be sought in

going through a phased approach (called minimal e-government). The idea is that a candidate organization with certain institutional conditions and characteristics could undertake the role of achieving full potential e-government, instead of the central government, and follow it to achieve e-governance. The organization,

which is also supposed to have the ability to diffuse the idea and practice to other public organizations as well as non-governmental through networking, will lead this way with the support from the state towards a more reliable achievement of e-governance at state level.

The proposed theory was examined through a study of six cases of semi-governmental organizations in Iran. The study of the cases, which were found at different levels of preparedness in terms of being a role model and modernized, led to identification of a best candidate which was then verified through an in-depth study. The study is expected to contribute to a realistic understanding of e-government implementation in developing countries and the process of decision making by policy makers, public administration executives and international governance organizations. The message is that e-government and eventually e-governance can be implemented in a developing context even in the absence of state's intention or capability, and be promoted as a context related solution and as a mediator for state's development.

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LIST OF ABBRIVIATIONS

AV	Average
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CivilLiberty	Civil Liberty
KFZ	Kish Free Zone organization
MoT	Municipality of Tehran
MDGs	Millennium's Development Goals
NIOC	National Iranian Oil Company
OPEC	Organization of the Petroleum Exporting Countries
OECD	Organization for Economic Co-operation and Development
FYP	Five Years Plan
G2C	Government to citizen
G2B	Government to Business
G2G	Government to Government
H	High rank
IMF	International Monetary Found
L	Low rank
LM	Low medium rank
IGO	International Governance Organizations
FrdExFr	Freedom to exchange with foreigners
GDPppp	GDP derived from purchasing power parity (PPP)
GDP	Growth Domestic production
GVC	Governance
HA	Headquarter Authorities
LML	Local Managers in local municipalities
NPM	New Public Management
NGOs	Non Governmental Organization
Mt	Meyer's team
RT	Road and Transportation ad ministry
Rnk	E-readiness/ E-government Rank
PA	Public Administration
private.capit	Private sector capital
Pol.right	Political right
tax.GDP	Tax divide to GDP
TWA	Total Weighted Average
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
UN	United Nations
UNPAN	United Nations Public Administration Network
WB	World Bank
WEF	World Economic Freedom
WEO	World Economic Organization

CHAPTER ONE

Introduction to the research

1.1 Introduction

This chapter will provide a general overview of the research. The discussion includes the backgrounds of the research, the problems to be addressed, the aims and objectives of the research, questions to be answered, and the methodology employed to perform the research.

1.2 E-government as a converged new way of governance

The velocity of new technology diffusion (UNCTAD, 2005), substantial evolution of world labour division system, rapid growth in world economic (World Economic Outlook , 2000) during last decade of 20th century along with increasing social expectations have driven states across the globe to adjust and transform themselves to a new situation which emerged during 1990's and has continued since.

Considering the emerging advances and best practices in Information and Communication Technology (ICT), a positive to ICT attitude has been observed among global governance organizations. ICT is considered as a *catalyst* for growth in the uncertain global conditions (WEF, 2009), and as a means for achieving the Millennium Development Goals (MDGs) (OECD, 2004). UN also sees it as the *ultimate bridge* for development and information divide (UNCDF, 2006). It is believed that essentially privatisation of Communication sector and likewise liberalization of knowledge–information market could take countries to a higher rate in employment and even productivity (Erixon and Sally, 2006), and finally transform them into the Information Society.

Realignment within the new political and cultural coalitions after the collapse of former Soviet Union at the International relations stage, amplifying globalisation and regionalisation was synchronous with three emerging ideas: New public management (*NPM*) (Osborne, 1992; Day and Lord, 1988; Denhardt and Denhardt, 2003); *Good Governance* (Taylor et al., 1996); and *e-government* (Fernandes et al., 2001; West,

2006) for the states to adjust themselves or manage the rising waves and safeguard their national systems from chaos and social disorders.

Deploying the above ideas, in the form of Paradigm shift (Kuhn, 1962), into the national eco-political and social systems (Sorge, 1989), as addressed in recent literature of economics, public administration and development, is highly interdependent with the concept of re-institutionalisation in the context of social and organisational relations (Lawson, 2003).

Re-institutionalisation has appeared as a major shift in the rules of the game (formal rule: law and regulations and informal: norms and social standards) in which the role of players change dynamically (Jepperson, 1991; Scott, 2001 cited by Kshetri, 2009). In response to such circumstances organisations (as typical players) have taken certain measures for redefining their new position and in the same time reproducing their current status (Fountain, 2001). Governance, as a new coordination model of playing, has been introduced in response to the state's needs and has gone through the route of re-inventing the government by adopting NPM. Major challenges have been faced in achieving governance model including increase in both participation and social monitoring, and in supporting the extensive implementation of NPM and government positional shift. The changes in ICT and the offerings provided have led to the development of governing by "e", called e-government. Governance, as a concept or framework for reinventing government, and subsequently e-governance or "governance by -e-", as Kettl (2002) stated, have been introduced by many states, international governance organizations (Rodrik, 2001), UN bodies as well as academics and practitioners.

To attain increasing and sustainable development, theorists are now underlining nations' institutional capabilities, "social capital" (Healy, 2001; Putnam, 2000; Woolcock, 2001) instead of their technological resources, supported by a combination of internal and external investments. In the same vein, new theories on e-government or e-governance indicate it as a concept associated with institutionalisation in terms of organisational culture and stakeholder relationship, and modernisation of public sector (Hammer, 1990). In this relation, Fountain (2001) proposes her enactment framework in which the main challenge is co-evolution of technology, institution, and organization in public administration.

In the same context, the theory of development has also shifted from being _ economic and state-focused to being multi dimensional and global, which is fuelled by the technological advancements such as ICT. This change has been accompanied with a major shift in the role of states towards minimal custodial role (Evans, 1995) leading to change in the rules of the game (North,1993) where re-institutionalisation is driven by the state to promote entrepreneurship and activate stakeholders through partnership (Hirschman, 1958; Gershenkrone, 1962), and adapt to the new environment in which the institutions cannot be built through prescription and imitation but need social capital (Schultz, 1971) as well. These have defined new needs for agile operations through ICT and e-government.

These changes have had major implications for countries to transform (Evans, 1995; Stiglitz, 2002) including:

- Transformation (of institutional type) cannot be waited for within their natural course of time (North, 1993; Coase, 1992.);
- new players emerge in the scene a relationship with whom cannot be managed within the traditional governing models such as state-market;
- impacting upon the society (development) could only be led through networking with all stakeholders; and
- Policy making and driving, and service delivery and monitoring are becoming dependable on ICT based networks and collective online systems such as Virtual State (Fountain, 2001).

These, in essence, mean that development is now closely tied with ICT and hence e-government can be accounted as an essential interoperating system provider for good governance and e-governance .This can be traced in recent international moves in this area and in particular the UN and other international governing bodies' (i.e., IMF, World Bank, etc.) approach to adopt and introduce e-government as a strategic vital medium for development in developing nations (UNPAN, 2004).

The situation for developing countries is far more critical in this context as there are serious issues related to their institutions' availability and readiness, governing systems and models, and also time factor in catching up with the developed league, leading to a further gap per se.

The international records on e-government implementation by developed and developing nations (UNPAN.2006) show a worldwide and well-established acceptance and willingness to the idea. The situation, while supporting the above arguments as well as producing a possible understanding of the magnitude of the issue across the states as emphasised by the UN, brings up more questions to be discussed. It is evident that e-government projects not only have not led to e-governance, good governance, virtual state and development but have failed in most cases in their basic objectives. This of course, is not limited to developing countries, but several countries of the First World too are associated with such results (Bolgherini, 2007). Heeks (2003) uses a classification of failure in three categories including total failure, partial failure, and success and predicts that an overall failure rate of 85% can be expected for e-government projects. Avegrou et.al (2004) suggests that: "developing countries are in danger of locking themselves into a new form of e-dependency on the West (instead of e-democracy)".

On this ground it is necessary to understand whether the situation is a result of desperately seeking solutions to critical problems especially by developing nations; if the vast investments and programmes have or would lead to any achievement of development goals and diminishing of gaps; and whether the paths set for this are developed and designed considering all dimensions and aspects and not solely based on experience of developed or advanced developing states (post-development solutions for underdeveloped world). General existing evidences in this relation suggest cautious view of the situation, which is in need of research. To address this concern the core subject of this research is set to be whether e-government in developing countries can be achieved and applied in the support of the state's development, and how this can be realised and realistically achieved.

The questions addressing the research concerns will focus on the status of the e-government as a global movement, the differences between developed and developing countries in approaching e-government, and seeking alternatives for developing countries to compensate for their shortcomings.

1.3 The research problems

Three key factors, as Heeks and Bailur (2007) investigated, impact upon e-government researchers' agenda and their results: the *youth of the field*, rapid *technical change* and *time pressure*. In explaining these factors, they reject the permissive and gold rush attitude in producing incomprehensive results to accommodate the increasing number of outlets for publishing and presenting those results as appropriate.

In addition by mapping the focus and areas of attention of works in this filed, as shown in figure (1), Heeks and Bailur (2007) identify dominance of a too optimistic view by researchers that may stem from an overestimation of technology in one hand and less attention to social elements on the other hand.

Moreover even when social aspects of e-government are addressed by researchers another laissez-faire type of attitude may be witnessed due to the background of the researchers and multidisciplinary nature of the issue. For instance, Fountain (2001) by pointing out institutional aspects of e-government, suggests the term of technology enactment, however she reduces the social characteristics of problem by limiting it to organisational level and organisational behaviour- borrowing a specific theoretical perspective of institutions of Yang (2003).

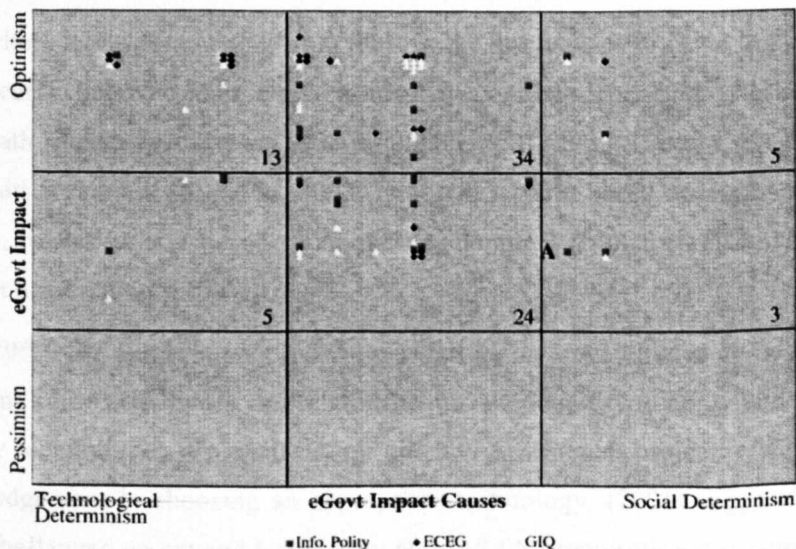


Figure 1.1 R. Heeks, S. Bailur (2007)

Also Heeks (2005), who has acknowledged e-government as a socio-technological phenomenon, sets some key assumptions in describing and interpreting e-government which leads towards a limited view of the subject. As an example where he suggests e-government is compatible with new liberal ideology, or that it is a revised way of government reinvention by ICT, or his advices on hybridising staff and manager training (ibid) he in fact looks at the problem from the window of management and IS improvement.

1.4 The research background and the need for this research

While the optimistic approach about e-government continues hitherto, the early enthusiasms on the benefits expected from implementing e-government have been critically questioned, and more failure and growing scepticism have been gained instead. Scholars (Avgerou, 2003, 2005; Ciborra, 2002, 2005; Amoretti, 2007; Bolgherini, 2007; Scholl, 2002; Kumar, 2006) have theoretically challenged the idea of e-government to bring development, democracy or even efficiency to states or governments. Heeks (2005) has projected a success-failure model and an estimation of e-government projects success which is also supported by other sources (World Bank, 2005a). Many recent publications report failure or question success of e-government in practice particularly in developing countries (Basu, 2004; Ndou, 2004; Dada, 2006).

Finding out where it has gone wrong from most of the discussions so far in this relation. It is now clearly believed that e-government is context dependent (Heeks,1999), institutionalisation related (Avgerou, 2003; Fountain, 2001, 2003; Ciborra, 2005; WEO, 2008), a cognitive process (Avgerou, 2003; Fountain, 2001) based on experience and try and error, related to social and economic development (Mukabeta Maumbe et al, 2008), and not a one-solution-for-all cases.

Bolgherini (2007) in exploring e-government failure in developed and developing worlds explains some differences and relates them to the inability to apply and activate the same very technologies deployed in any given e-government project, which partly links to misjudgement in choosing an appropriate technology. (2001) suggests that e-government challenges go beyond technology and call for organisational structure, new leadership and reformed public-private relationship.

Following his classification of failure, Heeks (2003) identify two high-risk archetypes that affect IS in developing countries: country context gaps and hard-soft gaps. He further relates the failure of e-government projects with three major gaps in the process of design and implementation of e-government. He also developed a new model to explain the high rates of failure. Using the contingency theory the model explores the notion of design-actuality gaps with which the match or mismatch between IS designs and local user actuality could be examined.

In particular, existing research on e-government in developing states suffer from lack of sufficient literature, lack of evaluation based on last problems, and focus on case studies of limited success stories. Heeks (2002) believes the failures are now greater than before.

An important aspect that needs serious attention is the paradoxical situation in the nature and realities of e-government as a solution that could not be resolved through the prescriptive approach that exists in current works on e-government. On the one hand, e-government by nature is a very complex comprehensive implementation project which carries a great level of risk and hence failure in any context. On the other hand, a very unprepared and poor context, such as developing countries, will make the incumbent prescriptive theories and models issued for implementing such a project highly susceptible to failure. The objective of this research is to address such incoherent approaches to e-government design and implementation by national and international e-government stakeholders, searching to:

Portray a multifaceted but integrated concept of e-government in developing grounds contributing to the gaps in the literature, and;

Develop, through examination of various inter-related theories and models, a practical and reality based scenario or model that could provide a reasonable road map for those who are involved with the issue of (good) governance, e-governance including international organisations, states' key policy makers and other key figures of governments in developing countries.

The second thread follows this belief stemming from understandings in the field that the question is not whether to adopt and apply ICT and e-Government or e-Governance, but HOW it can or should be implemented and fit with the context of application. The

concern lies mainly in how the implementation is followed and what the role and responsibilities of policy makers and those who execute them are.

This enquiry was also expected to be considerably challenging as it needed a vast inter and multi disciplinary theoretical investigation which covered areas from socio-economic development to political science and public administration, and to institutionalisation theories. The journey secured considerable complexities in the analysis of the subject as concepts would find specific interpretations in different theoretical grounds and achieving a coherent inclusive perspective.

1.5 Research aims, objectives, and questions

From above discussions and the literature reviewed, it can be said that dramatic changes of the past two decades in the international political system and global economy structure enhanced by radical development in technology in particular ICT have driven the societies at all development levels to an unstable/uncertain institutional status (situation). Theoretically the solution lies in moving from the emerged situation to a new established status which brings the relations between social institutes (stakeholders) to a new structural form built on information/knowledge based relationship. This in practice can be achieved through moving to good governance model which in turn is the result of applying e-Government and New Public Management (NPM). On this basis, a plausible way to succeed in this journey is, moving from the existing global unstable institutional status to a new information/knowledge based institutional status and achieving Good Governance through implementing e-government.

This will be the core subject of this research in which the ideas expressed above will be examined. The research will be carried out through setting up questions, aims and objectives explained in the following sections. The major issue of this research is how e-government in developing countries can be achieved and applied in the support of the state's development, and what strategies can secure its realisation.

The questions to address the research concerns will focus on the status of the e-government as a global movement, the differences between developed and developing countries in approaching e-government, and seeking alternatives for developing countries to compensate for their shortcomings. Questions central to this are as follows:

What are the mechanisms and approaches which have led to confident implementation of e-Government in developed (high ranked) countries. In other words what Structural factors influence the success/failure of e-government implementation?

What factors could be considered in the absence of a certain social structure, as replacement. Issues such as leadership, social/political special circumstances (exterior environmental factors), ICT, and strategic plans and actions are considered.

What innovative approach should be adopted if none of the factors in Q1 and Q2 are available to a (developing) country? Such innovations should be sought in simplification of the path and introduction of intermediate ways. Ideas such as a minimal or small scale approach, applied in other disciplines related to development, should be considered for e-government to replace the failed or susceptible to failure planned based approaches as short but reliable routes to e-governance.

The research objectives is therefore to examine the process, trends and categories of e-government implementation in developing countries in order to provide a means of understanding and projecting future trends of e-Government, and examine the theoretical as well as the practical approaches for implementing e-government systems through the following steps:

- Analysing characteristics and status of e-Gov across countries by taking into account the factors determining the level and position of the states in socio-economic development.
- Introducing a framework for encapsulating the development factors in institutional and structural elements, and testing the status of the e-government implementation across the states within that framework.
- Theorising, identifying and examining innovative solutions, in the absence of stable structures, for viable approach to e-government in developing states.
- Developing an adaptive scenario and test its reliability (in terms of key stake holders) in Iran as a developing country.

Putting the above questions into a perspective, a multi-dimensional theoretical view was required to explore the answers adapted to available evidences. A conceptual model was developed as the result based on the analysis of the research findings. The model was based on the understanding that within the frame of the universal maturity model

proposed by the UN and EU for implementing e-government, which is based on a linear path, the developing countries will not be able to proceed and are likely to stop at or before the 3rd and/or 5th stage of the model. Such a situation is envisaged to lead to poor potential for e-government success linked to diminished projects and instability of governments. The deterioration of policies for e-government implementation in developing states relate to many factors among which weak leaderships visionary in contrast with other priorities, values and daily challenges, and poor institutional structure (informal organisational relationship and individual or groups interest) are more critical. The model goes to suggest that developing virtual communities based on a “minimalist” approach, in terms of a cooperation model among selected key stakeholders, can be a bridge or catalyst inter-phase stage in implementing e-government in developing countries leading to full potential of e-Government.

1.6 Methodology

This research is of exploratory nature with focus on epistemological aspects of e-government to provide a comprehensive and multifaceted yet integrated perspective of the subject. This was expected to lead to solutions to the theoretical and pragmatic shortcomings in understandings of the context and implementation of e-government in developing states. The research consisted of various dimensions including: analytical approach to examine and critically review the existing theories; examination of e-government initiatives using secondary data; and developing a theoretical framework for implementing e-government in developing states that is examined and validated through case study of Iran for its e-government.

The research which fits within a social science approach adopts a logic-inductive approach to extract the root causes of e-government failure in developing states. It targets for proposing ways out of the deadlock/dead-end position most developing states get stranded in. The ideas are then examined in a relevant case (developing country, Iran) to develop an in-depth understanding of the problem in a real context, and identify elements and factors determining the aspects of the proposed model for e-government implementation.

In addition to extensive literature review and critical analyses of the existing theories, as the foundational method, the research has used secondary data analysis and

commentary, conceptualisation, multi case study, and in-depth case study shaped in a mix model for getting the results expected.

1.7 Thesis Overview

This chapter provides a brief description of the content and structure of this research, which is organized into seven chapters.

Chapter Two focuses on the literature review and generating a critical perspective of the multidimensional and consequently multidisciplinary contexts relevant to the research subject. The environmental, structural and mechanisms impacts upon e-government are identified. The areas are: Information society, post cold war era and globalization; government role and positions including discussions of government transformation, governance and new public management; E-government conception, perception, strategies and implementation; Development theories, social and political institutions behaviours related with state and social actions; and strategy planning models. The main aim of this chapter is to provide an understanding of exogenous and endogenous elements playing a role, and the complexities that underpin e-government deployment in particular in developing ground by demonstrating the interdisciplinary nature of the subject. Findings and recommendations of the review generates building blocks and constructs for the theory development.

Chapter Three describes the methodology deployed to meet the research objectives. The covered areas include an introduction to different approaches for data collection and analysis, philosophical perspectives, advantages of Mix model and comparative approach based on secondary data provided by official bodies and organization, and employed tools such as SPSS and its associated statistical techniques such as correlation analysis for finding inter-relationships among variables and proposed features and factors. Additionally, the case study method and how it can support achieving theory building objective of the research and providing the required evidence confirming the research claim and validating it are presented.

Chapter Four follows the theoretical analyses carried out in chapter two by employing a secondary data analysis from various international sources. The chapter describes in details why and how data from various world resources gathered in order to demonstrate the states' structural characters in relation with e-government positions to capture

institutional prerequisites for a successful deployment of e-government. This work will add to the theoretical perspectives captured to form the conceptual framework for e-government towards governance through technology enactment at the state levels and in the developing ground.

Chapter Five presents the conceptual model developed as the result of research conducted with two aims; first to project the conclusion from literature and secondary data analysis and to explain if e-government can be a solution for developing states to achieve development (or at least support their development agenda) and to answer why and how questions, and second to propose a scenario based approach for reconciling the paradoxical situation in implementing e-government in developing countries to contribute to the need for developing an answer to the situation.

Chapter Six presents the case studies undertaken within this research and demonstrate the exploration of the proposed framework in a real environment and the findings which will provide support for research hypotheses create new views and knowledge and help theorising the subject of e-government in developing countries.

Chapter Seven provides an in-depth perspective into the case study organisation chosen as the result of the applied theory and projects a further exploration of the concepts and its related issues within the organisation and its stakeholders. This provides a validation for the proposed solution and helps to generalise the ideas proposed as a model for further work, contemplation and research, and to provide a framework for policy and decision makers.

Chapter Eight summarise the findings of the research and proposes further areas and avenues for research.

CHAPTER TWO

Literature review: E-Government implementation in developing states to achieve development goals

2.1 Introduction

E-government concept has been treated as a quick solution for bridging the gap in development between the developed and developing worlds. However, more failures and growing scepticisms have been gained than success. As a result, viability of e-government as the solution and validity of approaches to it have been widely questioned by scholars, practitioners, and even politicians. Although research in e-government has become an independent strand and enriched by development of theories and models for thought, some serious doubts have been cast over the idea and approaches to it, leading to invitations for new solutions and approaches, something that is missing in theory and practice of e-government. Questions have been put forward but answers and solutions yet to be produced. It is now elaborated by workers in the area that e-government is a socio-economic development related matter that is associated with institutionalisation, is a hope for achieving good governance through application of ICT and implementing NPM, and also is highly context dependent. However, the theory still needs to establish, both analytically and empirically, the reasons for why e-government cannot be achieved in most developing countries, hence opening the way for solutions and ideas.

The ground for research in this area is wide and open but somehow complicated and complex. On the one hand, researchers should conceptualize the mechanisms and structures that interplay in determining the research objectives and on the other hand they have to narrow the research area to attain significant results in time. Researchers are faced with a multidimensional but nascent and fast progressing phenomenon that involves a composite of disciplines which should be explored in proper depth, and in the same time speedy results are needed as the subject is a practical issue for which directions and solutions are expected by policy makers and practitioners. Researchers have an agenda on their hands different from the desperate demand from governments, states and international governance organisations to implement solutions, or the market based approaches by MNCs and ICT businesses to produce and promote solutions.

In reality, however, such complexities do not seem to have been addressed properly and as such either have been ignored or responded to with too simplistic or naive approaches that dominate the existing works in this area. In developing context this complexity may be more, and as Heeks (2006) states it may relate to the gap between reality and design. This problem in fact stems from different perspectives and practices of ICT designers and producers in advanced countries, international donor agencies who support ICT dissemination in developing countries, consultants and specialists, information technology (IT) vendors, and Western-trained civil servants who could not understand or accept the reality of social, political, cultural, management in these countries. The approach to e-government research should therefore consider this gap. The Researcher however contends that this (reality) is not well identified, theorised and clarified due to the research problems mentioned above. The problem may be attributed to the gap between empirical and conceptual sides of e-government as a new paradigm.

This research intends to project a fresh and multidimensional perspective of e-government addressing the simple question of “whether e-government can bring development or support achieving development goals in developing states”. The research begins from exploring the idea and conception of e-government to identify the gaps in understanding the idea leading to misguided and hence failed implementation of e-government. We argue that e-government is among the last resorts available for filling the widening gap of global development, implementing of which to meet any such promises is the grand challenge to be understood and addressed. In the light of the existing works we identify areas where the implementation of e-government face dead-end and provide a multidisciplinary interweaving perspective of such issues and related theories to support proposing features of approaches which can reduce or fill such gaps. We intend to offer a theoretical perspective of e-government in the context of relevant theories in a historical context of global development, and show that e-government as a solution will face fundamental setbacks due to incapacity of developing states to accommodate the requirements of embracing e-government as a means of achieving good governance in the move towards globalisation. The core issue is seen to be the lack of institutions and in the same time incapability of such states for building or accommodating them.

Reading through the literature, this study argues and suggests that ways to overcome the barriers to achieve e-government as the means of establishing good governance and

joining globalisation move are still thinkable for developing countries in their own context. It is believed that the issue of e-government success is about how implementation is defined, designed and planned within the contextual situation of the country.

2.2 E-Government Background

The significance of ICT in the context of technology advancement and the theory of globalisation makes it a defensible medium for achieving what has been sought after for many decades across the world. In the same time, the delicacy of the matter and its strong bearing on a wide range of issues in the subject of development requires a very cautious approach in interpreting the situation. This sensitive situation seems to have kept the thinkers and workers at bay in terms of coming with answers and much wanted solutions.

We aim to achieve a clear understanding of what is wrong in this game and in specific terms why developing states are not likely to achieve e-government success, as defined to be a means of achieving development and reducing their distance with the developed world, and where the answer may lie. Our analysis of the subject takes the concept of ICT/e-government in a historical background of development, and by analysing three main constructs of the modern world, namely globalisation, (good) governance, and (new) institutionalisation derive the conclusion that expecting e-government success in most developing states is unrealistic if not impossible. The central point in this situation is lack of institutions needed for establishing the grounds and providing necessary condition for shift of paradigm in these countries. This absence of institutions is further enhanced, hence adding to the depth of the problem, by a fundamental lack of capabilities in those states to develop the institutions in short or even midterm, or accommodate and support their formation in a natural social context. This, however, does not imply, as usually referred to as an impeding factor in relevant literature that developing countries do not have any institutions per se or that no way exists to escape the existing deadlock. It is now evident that some developing states have found their ways through building, re-organising or reforming their institutions leading to some success scenarios and stories.

This chapter presents the critical review of literature around the concept of e-government in the frame mentioned above. We begin with an overview of e-government

as a concept, a strategy, a practice, and a model for bringing improvement and possibly development. The conception of e-government and its various aspects will be analysed using a systematic review of the existing literature. Issues related to its dimensions, approaches, and impacts as well as success or failure of the project will also be discussed.

The exploration follows by finding out why and how the e-government players fall for initiating and pursuing e-government objectives. For this we turn our attention to the institutional mechanisms that encompass entities involved in e-government initiation and implementation. Structural constraints that policy makers and institutions are commonly engaged with or impacted by will be analytically examined and highlighted. Here the question is: whether policy maker's desires and decisions to initiate implementation of new technology or any new change can result in the predetermined outcome or not.

External environment or exogenous elements that impact on e-government, especially globalisation, will then be discussed. The subject will be globalisation waves and their relation with e-government and its emergence. Globalisation as the agent for change and uncertainty as well as the origin of standards and solutions will be reviewed, posing questions such as: how global governance system operates, how it impacts state governance system in the frame of economic development, and why global governance outcome have to be accounted for in state's e-government program. The institutional impacts on decision maker's support for e-government implementation and functioning in a given national context will also be argued. In addition to the possible roles and functions of (IGO) and other knowledge/information based businesses will be reviewed.

The next subject to discuss will be the Public Administration (PA) as the direct agent and the endogenous element related with e-government. In this part background, trends and characteristics of PA which impact on feasibility of e-government in a given context, such as developed and modernised context against advanced developing and developing countries, will be reviewed. The discussion will include the emergence and dimensions of New Public Management (NPM). Examining PA response to e-government considering the specific context of the country, quality of PA systems, and the embedded social conditions and economic situation will be carried out and possible political implication of e-government implementation will be discussed.

Development as a socio-economic context which impacts on quality of e-government implementation and more importantly as it shapes the main area this research intends to address when it comes to the outcomes of e-government implementation will be studied. In this part a retrospective review of development theories and debates related to it will be undertaken the claims around the role of e-government as a bridge to the global gap of development will critically examined. The discussions will go around main social and institutional differences that impact on policy makers' decision to support and persuade full potential e-government implementation, or discard it will be reviewed. Here social and political, and hence economic experience, structures and values as possible elements in this relation will be considered.

Also the concept and issues on governance (good governance or e-governance) as the final destination of e-government, and as the latest emerged political discipline will be looked at. A discussion of issues will be carried out at the end to project an integrated perspective of the concepts reviewed including development, globalisation, public administration (and NPM), market and social networks, and e-government to lead to a thought framework clarifying the state of e-government as a means for development.

2.2.1 E-Government; concept, conception, implementation and success/failure

New Technology diffusion velocity, depth of world labour division system transformation and world economic rapid growth, and consequently increasing social expectations, have driven states across the globe to adjust and transform themselves to this new situation which emerged during 1990's and has continued since.

Transformation from traditional thinking to innovative worldview, and new life style in the context of new ICT solutions including e-government, has brought along a number of transformations in various fields including the political system (Gaco, 2003). Considering the emerging advances and best practices in Information and Communication Technology (ICT) and their impacts on the share of service sector in the expense of industrial and agriculture sector, it is believed that natural monopoly, privatization and Foreign Direct Investment (FDI) invitation accompanied by protection of intellectual property and copyright, and likewise liberalisation in supply and demand in knowledge-information market could take countries to a higher rate in employment and even productivity, and finally transformation into the Information Society.

E-government concept has been treated as a critical and quick solution to respond to the global need for both reducing the increasing costs of bureaucracy and public management, and improving the efficiency of public services in order to meet citizens' demands. As Schedler and Scharf (2001) point out, the discourse on the state modernisation or its administrative reform has found a new and strong association with the e-government.

From an international perspective the link between ICT and development has entered the discourse of international organisations which have been struggling to reduce the so called gaps between developed and developing states through initiatives for raising awareness, pumping aids and encouraging investment, and promoting policy measures for communication infrastructure and ICT diffusion in all sectors (Avgerou, 2003). The recent decade has witnessed an extension of this strategy and a shift of focus to the concept of e-government promoted again by international agencies as a means to obtain efficiency, accountability and transparency in the governance of developing countries (Ciborra, 2005; Amoretti, 2007).

There is no universal or unique definition of e-government in the world , but according to most researchers, e-government is the use of information technology, specifically the Internet, to deliver government information and services to citizens (G2C), businesses (G2B), and other government agencies (G2G) (Seifert, 2002).

Some observers define e-government in terms of specific actions: using a government kiosk to receive job information, applying for benefits through a Website, or creating shared databases for multiple agencies, as examples (Bonham.et al., 2003). Other observers define e-government more generally as automating the delivery of government services (Luling, 2001) cited by Burn and Robins (2003). While perceptions of e-government vary widely, some common themes can be identified that capture its evolutionary nature.

E-government can be described as "a rich mixture of IT capabilities, competencies, and organisational administrative practice spanning both business-to-business and business-to-consumer (B2C) activities" (Deakins and Dillon 2002). E-government uses IT and the internet to provide citizens with "inexpensive, real-time access to consistent, up-to-date information and transaction facilities" (USA E-Commerce policy, 2000; Verton, 2000; Wood-Lewis, 1998).

E-government has been defined by some researchers in terms of specific actions (e.g., obtaining documents, accessing information, creating a shared database), or simply as the automation of services (Seifert, 2002). A 2002 Improvement & Development Agency study categorized e-government into three high-level types of uses of the web: e-governance, e-services, and e-knowledge. E-governance pertains to the linkage established between citizens, stakeholders and government officials. E-services is the electronic provision of government services. E-knowledge refers to the use of communication technologies to provide and obtain information (Zhou, 2004).

E-government, as a term, according to World Bank definition refers to “the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government.” another source, The United Nations Public Administration Network (UNPAN, 2002), described E-government as “a government that applies ICT to transform its internal and external relationships in order to optimize carrying out its functions.” Another researcher (Burn and Robins, 2003) point out that e-government is to “provide citizen with information and services they need, using a range of information and communication technologies.” In addition, Evans et al. (2006) illustrate E-government as a communicative method between the government and its citizen through web-enabled presence like email and computers. Furthermore, Wescott (2005) indicates that e-government is to make use of ICT to provide more government services, efficient, cost-effective and participatory government, permit public access to information and enable government to account for citizen. However, in Ndou’s (2004) view, E-government is a complex concept with a broad definition and he also indicated the narrow definition and ambiguous understanding of the E-government concept, process and function result in failure of some E-government initiatives.

In terms of these researchers’ point of view, basically, the main explanation is the same. As can be realised from the above definitions, e-government is to neither display several computers in office nor link these computers with network, setting up the webpage in the government. Nevertheless, e-government can be recognised by two aspects, one is internal management, and the other one is external service. Government uses the ICT to facilitate its management, improve government efficiency and effectiveness, enhance transparency and accountability, obtain its services, and utilize resources for internal

management. In respect of external service, e-government is to provide its business and citizen with effective and convenient access to government information and services anywhere at any time and to encourage participation of clients (Yang, 2004). Indeed, ICT plays an essential part to assist government transformation to E-government and enable environment to adapt E-government application for social and economic growth (E-government survey, 2008). Thus, E-government has multiple aspects but the ultimate goal is to serve the public with a strengthened government system and gives impetus interaction between government and its clients.

According to Pascual (2003), the four dimension of E-government services delivery model are Government to citizen (G2C), Government to Business (G2B), Government to Employee (G2E), and Government to Government (G2G). In addition, as Brown (2002) categorized, G2C is the exercise of power on behalf of society, G2B is to support the economic growth and social cohesion, G2E is management of the assets and machinery of government, and G2G is management of the relationship with the larger global environment.

2.2.1.1 Beyond service towards e-governance with e-government

But e-government has to be differentiated from the Internet and web-based technologies. E-government as envisioned by many is not simply about service delivery. It means a set of innovative institutions. E-government can be viewed as a competitive tool to accelerate the economic growth (UNCP & ADB, 2004).

Pedersen et al. (2006) write that “e-Government or Digital Government has become a global theme in governments pursuing an agenda of providing citizen services and increasing agency efficiency using IT”. This “customer service strategy in Governments” (Fountain, 2005) sounds very much like most private sector strategies, and yet, differs greatly in the scope of its implementation. By customers, a wide range of entities should be understood, as pointed out by Codagnone and Wimmer (2007). Indeed, “modern Information and Communication Technology (ICT) heavily impacts and shapes Government activities for cooperating and interacting with customers and stakeholders (i.e., society, citizens, businesses, citizen groups, NGOs and other government agencies within countries and across borders)” (Codagnone and Wimmer, 2007:1).

Another dimension indicated for e-government in the literature is e-participation (“2020 document” by World Bank, as quoted by Codagnone and Wimmer, (2007)). As an entity representing the interests of all the citizens, Governments must make sure that e-democracy is, or will be, available to everybody (Codagnone and Wimmer, 2007:130). Interaction will become the primary result desired by governments with the implementation of an e-Government system. The World Bank’s definition, as quoted above, highlights future goals and challenges for e-Government.

What this definition indicates is that the main goal of e-Government must be to improve through e-Technologies, the democracy, but that this target of e-democracy, as a novel system of government, will introduce new challenges of e-Governance. E-Government helps strengthen government’s drive toward effective governance and increased transparency to better manage a country’s social and economic resources for development (Basu, 2004). The OECD e-Government Project defines the term ‘e-government’ as: ‘the use of information and communication technologies and particularly the Internet, as a tool to achieve better government’. The strategic objective of e-governance is to support and simplify governance for all parties; government, citizens and businesses. The use of ICTs can connect all three parties and support processes and activities. In other words, in e-governance electronic means support and stimulate good governance (Basu, 2004). The objectives of e-governance are similar to the objectives of good governance. “Governance” is a way of describing the links between government and its broader environment – political, social, administrative.” (Kettl, 2002). Good governance can be seen as an exercise of economic, political, and administrative authority to better manage affairs of a country at all levels (Backus, 2001).

E-business has changed government by not only introducing the latest technologies to boost efficiency and accessibility but it has also reinforced the principles of a strong and successful democratic government. This combination is the truest form of e-Governance (Bovaird, 2003 p.39).

E-Governance utilises the IT structures available to improve traditional methods in numerous ways; “the internet plays a key role but represents more than just a new channel for delivering government services. It is a catalyst that challenges age old assumptions about how governments should operate, especially how they create value

for their constituents by improving convenience, ease of use and by offering better information faster and creating a higher level of service” (Deloitte Research, 2001).

Fountain takes the theory of e-government further and suggests the idea of Virtual State (Fountain, 2001, 2005). She defines the Virtual State as a “metaphor meant to draw attention to the structures and processes of the State becoming more and more deeply designed with digital information and communication systems” (2005: 2). E-business entails, as we have seen, a profound restructuring of the organisation and processes that form the core of the business. In the same fashion, e-Government entails not only the implementation of e-technologies to improve existing institutions and relations, but using new ICTs to enable substantial changes (Fountain, 2003): it is about a “movement to a new equilibrium” (Ibid: 23).

e-Government is also associated with development. Heeks (2001) introduces development related benefits that e-governance (beyond e-government) can offer, which includes five main benefits to governance for development in terms of *Efficiency gains* that make the governance cheaper, more productive and quicker, and *Effectiveness gains* which makes governance to work better (higher quality), and become innovative. Heeks (2001) furthers his proposition by suggesting three main domains of e-governance to support development including; Improving government processes: e-Administration; Connecting citizens: e-Citizens and e-Services; and Building interactions with and within civil society: e-Society.

e-Government to lead to e-governance for good governance goals can therefore be closely tied up with bringing development. This theoretical stance can be supported by reviewing the concepts and theories of related disciplines. If we take the e-government full potential state as defined by Layne and Lee (2001), which entails horizontal integration of government services across different functions, to represent the goal of e-government project it is not difficult to see its convergence with the (New) development theory of Stiglitz and Hoof (2001), in which the missing link in achieving development is identified to be of a software and knowledge (information) type. Also taking e-government in its horizon, which is defined as e-governance (Heeks, 2001; Riley, 2002) and the package it is delivered with, we can find some similarities with the theory of development as suggested by Kauffman (2000). Among e-government goals is protection of domestic national system from entropy that is impacted by the global wave (Robinson, 2005) which is a necessary step for development (UNPAN, 2002)

particularly in developing states. Also e-government is referred to as a tool for trust building and bring confidence to the government (Tolbert and Mosberger, 2003), as an essential factor for government initiation of social programs and social capital (Ebrahim and Irani, 2005), needed for institutionalisation as the main feature of development (Grief, 2006) As the result, e-governance can facilitate social participation and channel of free negotiation such as e-voting, e-consultancy, e-decision making and e-budgeting.

2.2.1.2 E-Government implementation; challenges, and success/ failure situation and causes

Stage models have been used in formulating strategic approach to e-government and indicate flag poles and milestones for emergent areas as e-government. Various consultancy companies (Hiller and Be' langer, 2001), national and international policy-institutions (UNPAN, 2002; UN, 2003), and researchers (Layne and Lee, 2001; Moon, 2002; Stamoulis et al., 2001, Andersen and Herniksen, 2005) have formulated diffusion stage models. The World Bank provides an example of this analogous to the e-commerce stage models by arguing that e-Commerce has evolved already through four stages: 1) publishing, 2) interactivity, 3) completing transactions, and 4) delivery. A study by Anderson Consulting finds vast differences among countries in the maturity of their e-government effort. Perhaps the key finding, is that even the most mature countries have tapped less than 20% of the potential (The World Bank, 2003). The UN has identified five stages that essentially capture the same issues. The emerging stage is where there is an official government online presence established; stage two (enhanced) is where the government sites increase and information becomes more dynamic. Level three is the interactive stage where users can download forms, e-mail officials, and interact through the Web. Level four is the transactional stage where users can actually pay for services and other transactions online. Stage five is the seamless level where there is full integration of e-services across administrative boundaries.

Layne and Lee (2001) describes e-government as an 'evolutionary phenomenon and therefore e-government initiatives should be accordingly derived and implemented'. They suggest that there are four stages in successfully achieving 'e-government' activities. The first stage is 'cataloguing' where the government will 'establish an online presence', this being in the form of a website. Stage two is the 'transaction-based' stage, where the government puts 'live database links to on-line interfaces'. At

this stage, the government is taking part in a 'two-way communication'. Vertical integration is the third stage, where the focus is on 'moving toward transformation of government services' and the fourth stage is horizontal integration. In the fourth stage, 'databases across different functional areas will communicate with each other and ideally share information' (Layne and Lee, 2001). This means that information held by one department, will be accessible to other departments, thus making government activities more efficient for citizens.

West (2006) offers the following four progressive stages of government presence on the web: 1) billboard (displaying information on the web); 2) partial-service delivery (manipulating information databases); 3) integrated service delivery (integrating agency sites); and 4) interactive democracy (government interacting with citizens in momentous ways).

2.2.1.3 Failure/Success of e-government and the causes

The process to become "click-and mortar organisations" is generally a long and costly one (Turban, 2006). As a disturbing fact, however, it is evident and widely supported that e-government projects have failed in most cases let alone to lead to e-governance, good governance, virtual state and finally development. Bolgherini (2007) suggests that it is not only the developing countries to suffer such failures, huge differences exist in several countries of the First World too concerning such results and developments. In explaining these differences and what they depend on Bolgherini (2007) relates them to the inability to apply and activate the same very technologies deployed in any given e-government project, which partly links to misjudgement in choosing an appropriate technology. Orrego(2001) suggested that e-government challenges go beyond technology and call for organisational structure, new leadership and reformed public-private relationship.

A classification of failure is proposed by Heeks (2003) which introduces three categories including total failure, partial failure, and success. This helps to identify two high-risk archetypes that affect Information Systems (IS) in developing countries: country context gaps and hard-soft gaps. Heeks (2006) predicts that an overall failure rate of 85% can be expected for e-government projects. Heeks (2006) suggests an archetype of failure for e-government projects based on three major gaps in the process of design and implementation of e-government. He also develops a new model to

explain the high rates of failure. Using the contingency theory the model explores the notion of design-actuality gaps with which the match or mismatch between IS designs and local user actuality could be examined. Dada (2006) concludes from the literature on e-government failure in developing states that the technology should only be applied with considering the motivation and vested interest of all stakeholders in the project.

Amoretti (2007) associates the unsuccessful spread of e-government across nation states to a misled vision adopted and promoted by international organisation based on applying ICT as an opportunity to achieve development in underdeveloped states. Amoretti, as a result, follows West (2006) to suggest that developing countries are in danger of locking themselves into a new form of e-dependency on the West (instead of e-democracy).

According to Fountain (2001) both organizations and individuals generally use only a fraction of the features and functions of their hardware, software and telecommunications capacity. This is mainly because "individuals and organizations enact information technology by their interpretation, design, implementation and use of it in their organizations and networks. The flexibility, decomposability and functionality of the web and related information technologies mean that a system's objective characteristics may differ substantially from those that are actually used" (Fountain, 2001, p.89). Because employees usually do not use technology in the way they were supposed to, the outcomes for the organization will normally be different than planned. This process is not easy for a government and cannot happen at "internet speed" because the Weberian bureaucracy governing the public sector is much more complicated (Fountain, 2001 and Gasco, 2003). Following Fountain's theory of Technology Enactment, it can be argued that in order to implement efficient e-Government, the current institutions constraining Governments need to be "de-institutionalised" to allow the necessary transformation and evolution that will lead Governments to overcome barriers to profoundly change processes instead of simply using ICTs to strengthen existing relationships.

The question is to know how technology can "enable or lead to change in the structure of Government functions, processes and programmes" (Fountain, 2003: 5). The problem regarding the implementation of e-Government is that in most cases, "organizations enact technologies to reinforce the political status quo" (Fountain, 2003: 5), meaning that the transformation of objective technologies into enacted technologies happens

within an existing context of institutional arrangements, deeply embedded in the structure and the organisation of the entity. As Gasco (2003) puts it in her “Five propositions about IT and institutional change”, “ICT will give way to institutional change if the new skills and learning that governmental actors acquire motivate a different perception about the potential gains that result from the new situation” (Gasco, 2003: 11). Codagnone and Wimmer (2007) confirm this view. They write that “despite the many potential benefits of using modern ICT, Governments still struggle with the problems of rigid and ineffective internal and inter-institutional processes” (2007:2). Those institutions act as barriers to e-Government implementation. In order to alleviate the effects of “stovepipes” (Fountain, 2003), there must be a change in the culture of the organisation to modify the cognitive and cultural institutions of Government. Those barriers can be political, technological, organisational, psychological or social, but it all comes down to a fact: it is not simply about changing an information system. Achieving a sufficient degree of interaction between different Government agencies and services (G2G relationship) implies a change in the legal system. “Informal institutions” such as trust, norms and habits are even greater barriers to change. Civil servants might be reluctant to share information with other agencies in case they would lose power, what Fountain (2005) calls “perverse incentives”. As such a number of agencies may have been reluctant to commit and adapt fully to these changes as it involves reorganising, reengineering and remodelling of all four aspects of the organization (people, structure, routines and culture) (Roberts 2004).

Perhaps “to achieve the great transformation made possible by information technology, public administrator’s choice, initiative and entrepreneurship are necessary...Whatever is possible depends on people’s vision, belief and action, not on environmental fiat” (Yang 2003:440).

Developing countries have illustrated the necessity of adoption of e-Government methodologies and strategies in the 21st century to not only enable their citizens in the democratic framework but also to expand the reach of social equality. The primary concern of the majority of constituents currently is transparency – not only of the activities of the government but also of the traditionally anonymous civil servants of each administration.

The impact on strategy for organisations and especially political organisations from e-Business systems and models depends on the social and economic status of the country

they reside and operate in. Heeks (2006) suggests e-government to be a carrier of context.

Jaeger (2003) identified a set of impediments to the success of E-government which includes security, privacy, homeland security, digital divide, economic disparities, education, accessibility, prioritization, and citizen's awareness and confidence.

2.2.1.4 Conception and perception as a cause of failure

Answering where it has gone wrong, forms a considerable part of the discussions so far in this relation. It is now clearly believed that e-government is context dependent (Heeks,1999) institutionalisation related (Avgerou, 2003; Fountain, 2001; Ciborra, 2005; WEO, 2008), a cognitive process (Avgerou, 2003; Fountain, 2001), based on experience and try & error, related to social and economic development (Mukabeta Maumbe et al, 2008), and not a one-solution-for-all case (Heeks, 2003).

The research for finding the root causes of failure of e-government project continues. In this part the conception of e-government by different stakeholders as another factor is suggested and discussed. Defining, understanding and interpreting the concept of e-government when adopted and implemented entail different expectations which could lead to misunderstanding, conflict, and hence failure. A common theme among most of cited works on the failure of e-government is the existence of a sort of gap, mismatch or misalignment between players, contexts, conceptions, etc. In particular, Heeks (2005) argues that e-government is highly context dependent, and that the context of design inscribed into e-government systems in both explicit and implicit ways can produce a mismatch with the context in which it is deployed, and hence creates a contextual collision often leading to e-government failure.

E-government like many other newly formed ideas suffers from lack of a unified definition, conception, and model. The old fable by Rumi in which a group of men sought to examine an elephant in a dark room, each took hold of a different part and mistook that part for the whole and became convinced that an elephant was a fan, a rope, a pillar and so on applies to e-government too. This, in principle could lead to conflict of interest generated as the result, and contribute to the failure of e-government.

Through an examination of literature the existing gaps and misalignments between conception of e-government among various stakeholders can be revealed. Using a key

word search examined the existing definitions and perspectives to project the extent of disciplines involved in the subject, analyse the areas of focus, show the trend of evolution of the concept, and highlight the disparity of vision among some main stakeholders from international organisations. They discuss implications for the failure of e-government. Considering the researcher/author's involvement in the research a brief citation of the conducted study is re-produced in this part.

To understand the extent of impacts from misconception of e-government and how they could lead to conflicting and damaging situations, hence contributing to failure, a number of archetype gaps are suggested from a conception point of view . They relate to issues such as understanding e-government, adopting a style in implementing it, setting particular objectives in pursuing the initiative, and the intensity of the impact expected. The basis of these archetypes is a distinction between *Output* and *Outcome*. Riely (2003), drawing a line between output and outcome, argues that focus has steadily shifted to measures of output. Distinguishing government from governance is possible using this framework. Whereas the point of government outputs is the effort expended, the point of governance outcomes is the effects produced. One of the reasons people are often impatient with governments is because despite the reports of great efforts expended, the results produced (the outcomes) are often unacceptable (Saxena, 2005). This output-outcome gap leads to other forms of gap when treating a project such as e-government. The identified sub-categories of gaps relate to some institutional changes that could manifest in terms of the approach taken and the style adopted in the implementation of e-government, and also in terms of the level of impact the project is expected to have on the role and status of the government and the society. The sub-categories include: *Approach: Management Vs. Leadership; Impact level: Reform Vs. Revolution; Objective: and Managing relationship-Position adjustment*.

After assessing the material further, 115 documents including books, journal papers, reports, government documents, conference papers and web pages were identified and used for the purpose of the research analysis.

The authors' analysis first identify some key ideas, concepts and works on the subject, then extract the most cited references which include definition or conception of e-government. Understanding the e-government development trends is then examined and finally a classification of the existing conception is drawn to shape a clear profile of e-government phenomenon.

In perspective analysis of the data suggests some categories in which the definitions fall:

1. E-Government as input and process; Nine out of ten definitions refer to e-government as the use of Information Communication Technology, in particular Internet, within the government's body and between its clients.
2. E-government as Output: majority of definitions, six out of ten, emphasised e-government as an instrument for enhancing relationship between government internal entities and its clients (Keywords included: access/delivery/transactions/information service).
3. Outcome: only four of the ten address the results of e-government in relation with political and social institutions (their keywords include: Policy improvement or support/policy aim/Human improvement/national social and economic resources development).In the following table [2.1], the keywords are examined.

Each of the keywords is associated with an area of focus listed as well in the table. Besides the frequency of the keyword, this table also shows the corresponding expectation and focused areas of each keyword. These two issues link the individual word to the e-government implications. The results show that the top four focus areas in the existing literature relate mainly to output aspect of e-government such as technology and service. Outcome related issues such as transformation, relationship management, and democracy related issues do not receive wide attention. For example, the keyword of transformation focuses on the e-government development and reflects the outcome of e-government as well as the expectations of leadership, position change with citizen, and government revolution.

2.2.1.5 Evolution of e-government conception

The e-government concept has a short history of development which has evolved with the time. Understanding this trend could, as Heeks (2006) puts it, present the genesis for its application as means for solving poor management problems. From an analysis of the collected documents four periods have been identified which could be distinguished in terms of the characteristics they hold including the functional focus of the projects, main expectations, and the dominant perspective in shaping the theoretical structure and operational models. The trends are shown in Tables 2.1 and 2.2

Keyword	Expectation				Focused areas	Freq
ICT(s)/ technology(ies)		Management	Change relationship	Reform	Technological	77
service(s)		Management	Change relationship	Reform	Socio-cultural	71
Internet/web		Management	Change relationship	Reform	Technological	43
process(es)		Management	Change relationship	Reform	Operational	26
Transform (ation)	Outcome	Leadership	Change position	Revolu- tion	Development	13
administration/ ive	Output	Management	Change relationship	Reform	Managerial	12
efficient/cy	Output	Management	Change relationship	Reform	Managerial	12
relation(ship)	Outcome	Leadership	Change relationship	Revolution	socio-cultural	12
Communication	Output	Management	Change relationship	Reform	Operational	10
democracy/tic	Outcome	Leadership	Change position	Revolution	Political	10

Table 2.1 Keyword analyses of the definitions

Duration	1996-1999	2000-2002	2003-2004	2005+
Functional Focus	Information Management Public administration	Public administration	Public administration Government	Public Administration Social Issues
Expectation	Output Management	Output Management Relationship	Outcome Leadership Reform	Outcome Leadership Position Revolution
Dominating discipline	Management	Economics	Politics	Social

Table 2.2 A chronicle of e-government evolution

The analysis of e-government conceptions provides some useful evidence of the possible gaps and traps in which the project of e-government can become dysfunctional and end in failure. Some implications are discussed and include:

1. Focal point addressed by the literature is the central role of e-government stakeholders in the success and failure of e-government implementation (Heeks, 2006; Fountain, 2001; Lyytinen and Hirschheim, 1987). As put by Heeks (2006) while carrot and stick strategy or re-skilling some staffs and middle managers may work in individual level but not for multiple stakeholders. Stakeholders could have different and even conflicting interests for which the ability of the system to meet the expectations and needs of all is the main condition for avoiding implementation failures (Lyytinen and Hirschheim, 1987). This conflicting interest can be found clearly at the conception level as demonstrated here where the lack of unified view and vision could easily lead to conflict and hence failure.

2. Another critical issue, following the need for considering and aligning stakeholders' expectations, is the need for fundamental re-institutionalisation not only in governmental organisations but in the wider economical and political institutions (Fountain, 2001). According to Fountain (2001) e-government implementation

throughout its trajectories; initiation, transformation and application, could be expected to face several institutional challenges such as survival philosophy of key stakeholders, original purposes or premises of government reinvention, and major promise of technology enactment and e-governance. To overcome these challenges requires a consensus and aligned conception across the board about the concept of e-government and its implications. Misunderstanding or missing the full picture may result in conflict between activities when perceived from various points of view or with different literature. To provide a more focused perspectives' the issues related to some of the stakeholders for e-government are discussed using examples.

3. For business' the main premise or expectation is that e-government should reduce the costs of business by eliminating unnecessary procedures in providing services such as granting permissions, licensing, and monitoring. This expectation can fail for many reasons include incurring hidden and unqualified costs (as burden on public funds and consequently passed on to businesses) due to improper process of investigation, and the fear of information exposure to government agencies leading to more scrutiny and taxations.

4. For citizens, the main assumption is that reinvented government and e-government should bring the government costs of administration down through downsizing. The problem rise when the public realise the risk of unemployment both at government and private sectors due to use of ICT. Also the citizens expect more and reliable access to information as a result of e-government. However since e-government is supposed to lead to further privatisation and inclusion of private sector in running state and people affairs a paradoxical situation can emerge where the public may find the access to the information is rather limited due to the rights given to the private sector in undertaking the services. In summary, it can be said that public expectations at different levels instigated by e-government can conflict with the underlying changes and paradigm shifts in move towards e-governance related to the redefinition of government roles and position.

5. Process view of e-government implementation is another indication of possible conflicts and misalignment. Layne and Lee's (2001) stage model offered a vertical-horizontal integration as the final stage of e-government, where the offices from local to central levels should be integrated vertically and in a next stage cross organisations integration occur horizontally. This again can raise the question in terms of

compatibility of different processes and responsibility regarding outcome of the process in a reinvented government and reengineering with this integration.

2.2.2 Discussion

The review of literature so far has revealed that:

1. E-Government as a state related project falls within the boundary of state strategists and decision makers including policy makers, law makers, and also the executive body of the government.
2. The problem is in implementing e-govt and understanding the real issues and problems in this process as stated by many researchers in particular Heeks and Fountain.
3. Risk and success factor analysis discussed in literature commonly emphasize on managerial and staffing issues and pay less attention to institutional factors. Fountain (2001) has addressed the issue and suggested technology enactment and inter-agency integration in the second step and finally virtual state at the end of e-government process through a four stage model.
4. Heeks (2005) knows e-government as a socio-technologic phenomena which is compatible with a social context that adopt with new-liberalism values. He associated the problem of implementation to some gaps which usually exists between reality and idealistic demands of e-government clients, policy executers. He (2001-2005) suggests two checklists; structure checklist ITPOSMO and CIPSODA process checklist to consider in designing and implementing steps of e-government.
5. Stepwise and maturity model are common tools for tracking and assessment model for e-government implementation. These models typically attempt a conceptualisation of milestones, goals and horizon of e-government, and a proposal of tools for standardisation, assessment, benchmarking and defining the competitive path to successful implementation.
6. Most of the available models for e-Government including those of Heeks & Fountain, have identified and projected strategies (i.e Heeks' local/state/hybrid, and Fountain's Technology Enactment) which focus mainly on organisation or cross organisation relationships using network development and expansion and stakeholder

engagement, and do not really pin down the critical elements regarding social capital aspects, institutional and cultural issues that relate to the situation in developing states.

7. Implementation in developing world is highly dependent on policy makers and states' decisions that naturally are not prepared for a comprehensive transformation.

8. The problem is not in design (structural and infrastructural) of e-government as projected by many. The issue if related to design would lie within the design for initiating, reforming and developing missing elements in developing states which mainly relate to the existence, function and position of institutions. The real need is to instigate and inspire "institutional building" in developing states. What has made e-government as a means for transforming the society to information and e- society is institutions. This factor and its related elements (technology, globalisation, NPM) have already acted as a means in developed states for such a goal. However the very existence, formation, maturity and establishment of institutions and its related factors will turn to be *GOALS* for developing states.

2.3 Why e-Government in developing states fail?

In this part we build on the discussions and literature review so far to identify and establish the underlying main reason why e-Government, despite having been rightly justified as a viable solution that cannot be ignored or underestimated as a rare and reliable opportunity, have and will most likely fail in developing states. This will help us to lead the research to identify ways out of a deadlock in this paradoxical situation.

By reviewing the situation of e-Government in the context of development we review four interrelated concepts that will provide the theoretical perspective for identification of the cornerstone of success (or otherwise failure in its absence) of e-government.

To see e-government as a system of inter-related factors, we need to include a number of dimensions such as socio-economic development, technology for implementing e-government, as well as involved structures and mechanisms and environmental and social variables and factors in our study. In particular, to take a view on feasibility and viability of e-government implementation in developing states we should arrive at a reasonable understanding of the factors and players involved in the success of the concept.

For instance, if our concerns include “Development” in its external context (“Globalisation”) and its internal conditions (“Institutions”), and we consider government’s behaviour (“Governance”) in coordinating and conflict resolving through its operational agencies (“Public Administration” or an established “Bureaucracy”) using technologies available for this purpose (“ICT”), then we need to bring theories explaining all these factors to the fore and picture all scenarios and situations arising from possible interaction or conflict of those.

Theoretically, we could have different interpretations and perceptions of globalisation. For one it can be taken as a phenomenon supporting new global open channels for the flow of wealth, knowledge and labour. Also, we may find it a suspect for being a way for multinational corporations for accessing new markets and cheap labour or escaping taxes, or see its impact and role relative to the government’s strength or national institutions, or just find it as an idea or goal. We may find it useful or harmful to the process of development.

While we can observe that national governments are being pushed by the local industry and business and tempted by international funds and investments to expand and open their borders and that the borderless world such as European Union are emerging and being materialised, we should accept that the level of commitments and adjustments for governments is overwhelming. Opening the borders does not limit to economic issues. Changes in laws and regulations, developing institutional structures, and accepting less income from taxation should be facilitated too. Reduction in public services due to income decrease of the government should be addressed and innovative solutions be implemented in collaboration with business and the society. Here, the issue of “Governance” surfaces, an area in which the relationships between government and economic and political institutions are defined. We should also answer what sort of governance we are talking about: Western, Eastern or Global?

This is not the end yet. The technological advancements that have cruised across borders in 1990s have had at least three complementary and incredible impacts on the issue of globalisation. These include changes in culture and cultural products and their economics due to connections among life styles and social goals across borders: changes in the tastes and interests; and reforms of the cost models and patterns.

This extends to political models and echo-systems as well. Demolition of the Soviet Union and socialist regimes in 1990s led to a fundamental transformation of global international systems. The story went on and in early years of the new century it has been understood that opening arms to the globalisation and technology does not necessarily lead to any definite and specific results. At least it can be claimed that managing such dynamic systems and situations in this context can only be achieved if required institutions at national level are prepared. This means the problem goes beyond the role or position of government, and extends to both developed and developing camps. Laws, regulations, norms and life style have come under pressure on both sides, and interestingly the available solutions for different parties and places are similar too.

Recent advancements in areas of organisational technology and management such as NPM, Government Re-Invention, and finally e-Governance in practice mean sharing information, knowledge, solutions, and tools which would enable speedy change of roles, increasing adaptability and absorptive capacity, involvement of all stakeholders, decentralisation, re-centralisation, etc. The real question, however, goes beyond what universal solutions are available, but whether the conditions and circumstances with regard to applying the solutions are also the same for people in both camps, and whether they can use the same available solutions. For instance can we say that a society in which political and economic institutions are well defined and their borders are set clearly during the time, and changes in the society can be achieved through consensus based mechanisms will stand the same chance for institutional changes with another society where either such support institutions do not exist or are not established or they are not independent? Can societies with rigid framed borders for change in their institutions use the same solutions?

To induce fundamental shifts (of paradigm) and changes, we need to consider both the environment and institutional arrangements. We can expect gathering positive results from the process of globalisation and technology adoption only if it happens in alignment with the internal systems, processes and institutions re-arrangement. Otherwise the result could be contrary to expectations and even lead to destruction of the society as well as waste of limited available resources.

In the next section we endeavour to analyse the concept of e-government implementation in the light of globalisation impacts under contrasting circumstances

such as: developed Vs developing; available institutions Vs unavailable; prepared and strong organisations and bureaucracy Vs weak systems.

2.3.1 Globalisation

With a simple search on words of “globalisation definition” Google offers 34100 results, which implies that there is no general agreement on the definition of this term. However, a main focus could be found on an economic aspect with stress on integration. Two main issues are commonly referred to in this regard. For instance Merriam Webster defines globalization as: “the development of an increasingly integrated global economy marked especially by free trade, free flow of capital, and the tapping of cheaper foreign labour markets”. This twofold characteristic of globalisation has addressed two other essential conditions; equality or removing discrimination, and standardisation and harmonisation. The above features of globalisation are in the context of economic development associated with accessibility of rare and monopolised resources needed for economic growth. Regarding this requirement, one of the central ideas that have emerged in the last 10 years has been that successful development requires not only closing the gap in resources between the developed and less developed countries but also closing the gap in technology and in knowledge as well (Stiglitz, 2002).

But, important challenges have accompanied the opportunities too. Challenges range from using non-tariff barriers by developed countries, to instabilities resulting from short term capital brought by foreign direct investment (FDI) for access to markets and technology (Stiglitz, 2002).

Challenges and opportunities today are greater than ever before. The knowledge of the world is much more easily accessible, and the Internet , has made knowledge much closer than it ever was in the past. In particular accelerating pace of technological change has become a cause for continues shift in state-market balance (Grey.J.2004) as major players of development process.

In a collective perspective Stiglitz (2002). suggests globalisation as “The closer integration of the countries and peoples of the world ... brought about by the enormous reduction of costs of transportation and communication and the breaking down of

artificial barriers to the flows of goods, services, capital, knowledge and (to a lesser extent) people across borders”

Some scholars evidently prove that globalisation boosts economic growth. For instance Greenspan (2002) suggests that: ‘Open economies have experienced average growth that is 2½ percentage points higher than the growth of closed economies’. Developing countries which have increased their trade shares of GDP since 1980 have grown almost four times as fast as those which have not (World Bank, 2002). In this line, Rodrik (2001) also claims that: “No country has developed successfully by turning its back on international trade and long-term capital flows”. Nevertheless, globalisation has some negative sides for both developed and developing states which should be brought into account. As Halabi (2004) explains the challenges that the South poses include economic crises that may carry contagious effects such as the Asian currency crisis of 1997–1998, lower wage rates for unskilled workers in the North, loss of competitiveness in key traditional industries in the North, lack of transparency and accountability in developing countries, and the flow of refugees and illegal immigrants from South to North.

In any case globalisation whether be old or new, global or international, a potential agent of conflicts or a bridge of integration, could be a double edge sword of opportunity or threat for developing countries. Obviously such states that could not play an efficient role in governance of this uncertain and unclear scene will be in a considerable risk.

2.3.1.1 Globalisation players and global governance

Lack of a defined and accepted central authority and a highly decentralised and disorganised set of players in one hand, and no set general rules of the play or established bodies for executing the rules in other hand have forced the concept and impact of globalisation governance to turn to a more informal model of relationships and mechanisms.

To illustrate this mechanism, realist scholars of political sciences offer a system of supply-demand which is managed through a hidden hand enforced by political powers. In this polycentric system with multiple players (states, IGOs, NGOs, MNCs, and so on) and in the absence of a precise hierarchy, states as the core players tend to trade off their

demands by supply of global resources through the rules of behaviours which undeniably get effects from power relations (Keohane and Nye 1977).

Neoliberal institutionalists such as Halabi (2004) have views consistent with realists about the centrality of the state in world affairs. Keohane (1984) accounts states as rational actors who manage the global economy through setting up IGOs and regimes that bring them to point of Pareto optimality, a point at which no one actor is made better off without making someone else worse off.

It is also contended that ‘‘institutions matter because they enable states to do things they otherwise could not do, that is to achieve mutual gains from cooperation’ (Schweller and Priess 1997:3). As the result, state’s capability and power to impact more on the relevant institutions is a major element in globalisation era. Some evidence of such situation includes bypassing the World Bank policies by South Korean government (Evans,1995), intervention of the US president to allocate extra loans to the Russian government while the country according to International Monetary Foundation rules should not receive any more support (Stiglits ,2000).

2.3.1.2 Globalisation and development

Change in the strategies of UN organisations in terms of state’s role as a motivator of the national economy and international trade (Evans, 1995), and a general optimistic view of nation states entering the new century was declared in the ‘‘Millennium goals’’ document, which framed a new atmosphere with promises from nations leaders to contribute to global projects. The document that addresses pervasive problems such as development gap and information gap led to some activities and guidelines for governments’ body some of which will be cited in this part beginning with UN masters:

‘‘It is increasingly being acknowledged that the State is a key actor in the development process. It has a major role to play in making globalisation work for all; in alleviating poverty and income inequality; in advancing human rights and democracy; in protecting the environment and promoting sustainable development; and in managing violent conflict and combating international crime.’’ [Nitin Desai, 2001- Under-Secretary General for Economic and Social Affairs]

‘‘In the UN Millennium Declaration Member States ...expressed faith in certain universal values, in better governance at the local and at the global level and in science

and technology, especially in the transformative power of ICT...we record progress (or lack thereof) in the implementation of this Agenda... This includes the impact of ICT on the ways we organize ourselves ... for ... achieving goals of growth and development. Good governance presupposes people's participation. ICT challenges the institutions ... as vehicles for assuring that participation (OECD 2004).

Public sector administration...accumulation of resources and their distribution through hierarchic bureaucracies: ICT tends to strengthen networks more than it does hierarchies...In the future, public value may increasingly be produced and delivered by the ICT savvy private sector... ICT challenges the scope of private value and its understanding by private agents who act in the public interest... ICT - and especially ICT in the hands of governments - challenges individuals as parties to social agreements that guarantee the human right to privacy." [Nitin Desai (2003) Under Secretary-General for Economic and Social Affairs and Special Adviser to the Secretary-General for the World Summit on the Information Society]

"Governments increasingly look at public administration reform as a key instrument to achieve important development goals and to catalyse wider transformation in society. At the same time, public administration will not be able to play this role effectively without competent and dedicated public servants. This means that the management of human resources has moved to the fore as a central concern of leaders in the public service... future reform in this area involves striking a balance between three broad models or schools in public administration: traditional public administration; public management, including (NPM); and an emerging model of responsive governance." [Jose Antonio Ocampo (2005), Under-Secretary General for Economic and Social Affairs]

Good governance, rule of law and an accountable and transparent public administration are regarded as key to the realisation of sustained economic growth, equity and social justice, and to strengthening implementation of the internationally agreed development goals, including the Millennium Development Goals (MDGs). An important component of efforts by Governments to achieve these goals is the participation of and partnership with the private sector and civil society organizations. [Sha Zukang, 2008, Under-Secretary-General for Economic and Social Affairs]

Looking at the tone and content of UN leaders from 2001 to 2008, clearly makes sense that the idea of emerging globalisation and development ties with public administration reform which is enforced or enacted through ICT and Human Resources as a dominant doctrine in the world of development. So “State, public and private values and institutions” should be challenged in this ground to provide sustainable growth, rule of law, human right, equity and public satisfaction.

To evaluate this road map and to some extent find straightforward solution for development, it can be useful to reconsider the definition, dimensions and history of development in action.

2.3.2 Governance

Good governance is a global concept that is accented as the destination of modern or last generation of government’s functions (Petters, 2005). The competitive and uncertain and challenging world situation push governments to facilitate and synergize national actors to improve the situation of their countries to the winning group, or at least stay away from being labelled as losers of economic and cultural battleground. Identifying stakeholders at national level and distributing the appropriate roles without the presence of institutional structure and organisations, communities and involvement of individuals, may put the country in the risk of missing the opportunities raised from market enlargement, idea and technology which are more accessible than before.

In the globalised economy, the countries for protecting and improving their national interests and international status in a changing, competitive and borderless market, have understood the importance of innovation and innovative and efficient production and trade. In preparing the ground for attending this competition, government and its performance is an important and challenging issue .On the one hand the role of citizens (organised and/or unorganized individuals), as producers, traders or consumers (stakeholders) has become more important than before. Consequently, the traditional relationship between government and citizen should be reviewed and reconstructed. On the other hand departments and governmental agencies’ processes and outputs should be reformed to suit the new emerging conditions for which the political regimes or central governments are under pressure to apply fundamental reforms, and formulate and implement a systematic, comprehensive and articulated policy and regulatory framework within inner and outer boundaries of government. According to Kettl (2002),

Governance is the outcome of the interaction of government, public service, and citizens throughout the political process, policy development, program design, and service delivery.

It is commonly accepted that governance is a new global way for governing global challenges, and a managerial solution for market and state collaboration. Re-branding governance with (e) as the symbol of deploying ICT namely e-governance makes good sense as a summit point where all experiences, creativities and capabilities of post modern human society meet to offer an unbiased package free from ideological, class or sector privileges to address social, political and economic problems in the globalisation era. But to understand how e-governance can lead to development, we need to answer some questions first: What e-governance really is? What is the relationship between e-government and e-governance? How this phenomenon should facilitate national productivity and enable nations to engage with globalisation, in particular developing nations?

Thus, to address the relationship between e-governance and public choice from a development perspective, we have to bring some other ideas and theories together. First we should invoke the development literature and its effects on governance as the latest account of a global prescription for development (UNPAN, 2001). The second strand relates to commonalities and points of conflict (and even confrontation) of governance and globalisation. The third one concerns the effects of governance implications on public choice about e-governance. The final topic will have a look at the relation between e-governance implementation in the context of developing states. The following materials in this part will address above questions.

2.3.2.1 What is Governance?

Governance can be connected with five phenomenon of management or leadership (Hitrs, 2000): 1) being recognised as a necessary component of effective economy, the strategy which from 1997 was followed by World Bank under the name of *Building state*; 2) international institutions and regimes are forced to lead on issues that are beyond state matters i.e. Global warming and drug trafficking through Supra state agencies; 3) Corporate Governance related to control of management by suppliers of capital; 4) conceptualisation of NPM strategies as a new style of management—devolving services to self managing agencies—and the policy of privatisation of public

owned industries or public services organisations; and 5) practice of coordinating activities through networks, partnership and deliberation forums (see *Debating Governance*, Pierre, 2000). So governance could be used as a concept, vision, strategy, direction, framework, criteria, technique, principals or style of Governing. The first two mentioned issues have obvious connection with the subject of this study. On the first matter, linkage between governance and development, WB survey (1992) indicated that: Governance is defined as the manner which the political power undertake management of the national economic and social resource in serving development and good governance goals. For the WB Governance is the synonymous with sound development management. The World Bank introduce five reasons for the failure of governance: separation between public and private sectors and a lack of tendency to divert public resource for private gains; weak and unpredictable law and regulation framework; excessive rules and licensing impeding market functioning and incentive rent seeking; misleading of resources stemming from improper political priorities for development requirements and; no transparent decision making process (WB, 1992). WB elsewhere also by focusing on 'reforming Public administration and strengthening government' (2000) acknowledged sustainable development with reform of PA and Good governance, synonymous with —state building and institutional reform. This reform was set on three bases: 1) reform within systems of internal rules and restrains addressed to accounting and auditing, and independency of banking and judiciary system, civil service; 2) voice and partnership which is about decentralising to empower communities; and 3) competency through privatization, social service delivery and public private.

According to Peters and Pierre (1998) the term of governance or governance without government is emerged in European in particular Britain context and then diffused to US during last decades. Peters and Pierre (1998) suggest governance as a prescription for steering society through less direct means and weakening the power of the State to control policy. Perhaps, they argue, the dominant feature of the governance model is the argument that networks have come to dominate public policy. Governance is generally more concerned with blending public and private resources than with competition in the public sector.

According to Peters and Pierre (1998) governance and its related reforms are path-dependent, which refers to the range of policy choice available for administrative

reformers; reform strategies are embedded in systems of norms and administrative practices and therefore reform strategies are shaped more by what already exists than by the desired model of public administration.

Good governance, as UNESCAP (2005) suggested has 8 main characteristics: participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making.

Within the frame of change in state's role from a custodial role (standard making, and directing) to a midwifery (supplying expensive governmental information for free and ease likewise demand generating and support from individuals and companies rights with protecting intellectual and copy right relevant with knowledge and information), it has been suggested (Evans, 1985) that the developing world, in the absence of investment and technology required, should try to cope the idea of governance or good governance which crucially depends on mobilising and modernising public sector and NPM (Evans, 2005). Kettl (2002) has identified and summarized the characteristics of both conventional and electronic government and governance in Table 2.3.

GOVERNMENT	GOVERNANCE
Superstructure	functionality
Decisions	Processes
Rules	goals
Roles	Performance
Implementation	coordination
Outputs	outcomes
E-Government	E-Governance
electronic service delivery	electronic consultation
electronic workflow	electronic controllership
electronic voting	electronic engagement
electronic productivity	networked societal guidance

Table 2.3 characteristics of conventional and electronic government and governance, Kettl (2002)

2.3.2.2 Governance and Development

E-government strategies in developing countries should first target the improvement of their operations and processes and also the level of government's ability to cooperate. This new unavoidable position for the world governments is now referred to as good governance (Zhang, 2004; Rose, 2004).

Kaufmann (2003) relates the lack of effect from international aids to developing countries to their well being to the matter of corruption. He suggests that corruption is not a mere administration level problem but rather a number of circumstances which makes a country prone to corruption. Six factors are mentioned in the report including: government efficiency, political stability and lack of violence, voice accountability, regulatory quality, rule of law, and control of corruption. The report (Kaufmann, 2002) believes governance and development are directly correlated, and that good governance relates with less poverty and better life.

The promotion of good governance is widely accepted as a prerequisite for development (Sen, 1999). However defining the principles of good governance is difficult and controversial.

2.3.2.3 E-Governance and ICT

E-governance may be understood as the performance of the governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities (Okot-Uma, 2001).

According to Riley (2003) e-governance is the commitment to utilize appropriate technologies to enhance governmental relationships, both internal and external, in order to advance democratic expression, human dignity and autonomy, support economic development and encourage the fair and efficient delivery of services. The idea and concept is also supported by others (see Okot-Uma, 2001; Leitner, 2003).

Implications of e-governance are different for developing countries. Whereas public sector reforms or the NPM movement in industrialised countries was internally driven (as in the UK, USA, etc.), in most developing countries the public sector reforms were externally driven through the World Bank and other donor institutions (McGill, 1997). However, in the case of developing countries, ICT use in the public sector was very

small, and therefore they had poor ICT infrastructure, if any (Yang, 2003). But e-governance is not a shortcut to economic development, budget savings or clean, efficient government. Instead, e-governance is an evolutionary process and often a huge effort that presents costs and risks, both financial and political (Pacific Council on International Policy, 2002).

2.3.2.4 Discussion

The development literature traces the emergence of governance to the void in theories appeared in particular after the collapse of the Washington consensus. As Stiglits (2002) presented in his work the concept includes promoting and regulating markets, providing institutional and physical infrastructure, promoting education and innovation and technology.

Some IGOs started to focus on good governance as an integrated model that potentially could yield win-win relationships between market institutions with the state policy makers and in the same time between politicians and policy executers in government organisations (UNPAN, 2001). The Idea of governance also by pulling the public organisations to the play can reflect on two dominant factors with which developing nations are engaged; Improving their productivity through attention to mindset and meaning that shape the social institutions via contribution of social activities (Sen, 1999) and democratization as a rarely available institution but a necessary twin of economic development ((North, et.al.2009)). Furthermore Governance not only can cover the concept of public private partnership by supervising society as a framework for development, as suggested by Evans (1985), it can promote the concepts of social capital and social networks as the core element of development as appeared in works of (Grief, 2006).Therefore, governance can work as a compensation for shortage of earlier prescriptions for development which neglected the role of all players as stakeholders of development. In practice, in most cases the role of other stakeholders such as policy executers (administrators and bureaucrats), Medium sized enterprises (MSE's) and micro market activists, as well as social participators have not been considered rationally. But in action governance is a path dependent phenomenon that emerged in a Western context, specifically Britain and Europe, and depend on each country's circumstances and its politicians and policy makers according to their institutional conditions and available instruments. This means, coming to developing states, it can be

concluded that fostering governance using technology (as a substitution) in the absence of institutional structure and institutional alignment (to adjust with governance requirements) could pose risk to governance implementation and e-government as it means.

2.3.3 Public Management

2.3.3.1 Introduction

Interdependency of e-government and a deep reform within public sector through reengineering processes and transforming roles of all players seemingly is a common assumption among e-government researchers [see Gascó, 2003; Homburg, 2004]. But why and how the key players from both parties, government and stakeholders, would join the play is the question.

New institutionalisation perspective, and in particular its “rational choice” branch provide a set of ideas that help to clarify why executives and senior managers are encouraged to engage with this challenging and complex program of e-government. Why they may contribute in a game in which their interests such as budget and territorial authorities not only will not be maximised but their activities may become under scrutiny of public. The concept of path dependency, can also help to understand the reasons that why governments in many countries embrace e-government and have been more successful than others. In this part the relationship between PA and e-government and governance, and how e-Government and bureaucracy impact upon each other will be reviewed.

2.3.3.2 Public Administration from old to new

PA systems have witnessed a shift from the old classic Weberian organisation, leadership and authority to what is called New Public Administration system or more accurately New Public Management (NPM).

The reforms that began towards end of 1970s in the public sector of most Western countries have been termed variably such as 'management revolution' (Hinton and Wilson, 1993), 'reinvention of government' (Osborne and Gaebler (1992).

Observing the public sector advancement in developed countries since 1980s, Mascarenhas (1993), argues that the alteration have occurred both, in organizational structures of political institutions, and in the objectives, values and cultures of the governmental organizations as well. A cultural shift from a bureaucratic response to public requirements to an enterprise based and performance oriented culture.

This shift has branded as “Reinventing Government” in American literature of the NPM following the work of David Osborne and Ted Gaebler's bestseller book (1992) "Reinventing Government: How the entrepreneurial Spirit is Transforming the Public Sector". The concept of reinventing government according to Osborne and Gaebler (1992) is summarized in ten principles for a good government: 1- Catalyzing public, private and voluntary sectors 2- Competition between service providers 3- Empowering citizens 4- Decentralizing authority 5- Driving by goals not by rules and regulations 6- Earning money, not just spending it 7-Focusing not on inputs but outcomes 8-Market mechanisms rather than bureaucratic mechanisms 9- Prevention of problems rather than treatment 10- Redefining clients as customers.

2.3.3.3 New Public Management

NPM has become one of the most important conceptual bases for PA reforms (Hiroko Kudo, 2008). Rhodes (1991) suggests implementation of the "3 Es" of economy, efficiency and effectiveness as the major manifestation of NPM. OECD (1995) defines NPM as a new paradigm for public management, aimed at fostering a performance oriented culture in a less centralized public sector.

Wright (1994) summarised the idea of NPM under eight headings including: Reduction in size, resources and scope; Improving the monitoring capacity of the administration; Improving the management of the public sector through fragmentation, regulation, competition, "hands-on" management, precision, output orientation, privatization, parsimony and customerization; Dismantling the traditional statutory framework for civil servants which was based on permanence, tenure, full-time work, equal pay for people of the same rank and a sharp public-private distinction; Democratizing the sector; Rendering the public sector more user-friendly; Reorganizing the structures of the public sector and; Transforming the culture of the public sector.

Dominance of the new public management in administrative reforms has taken shape along a worldwide acceptance of managerialist ideas. According to Enteman (1993), managerialism is an ideology fashioned by managers, it "...provides a more useful clinical description of what has been occurring in advanced industrialized societies than any-existing ideologies offer, including capitalism, socialism and democracy" (Enteman, 1993).

Pollitt (1990) marks NPM as a type of "neo-Taylorism" that through a restoration of scientific management concepts, works as a means for advantage seeking of a specific section such as top managers and officials in central departments.

UNDP (2001, p.35) suggests four core reforms in public sector area to profound public administration of developing states to govern globalisation risks and gain benefit from opportunities that globalisation provide. These are:

1. Privatization and deregulation: In a pattern replicated in several States substantial cuts in government funded benefits were attempted, and steps initiated to privatize delivery of public welfare services including education and health care, but also experimenting with private courts and prisons, as well as private police forces.
2. Market-like mechanisms: Where core functions (often social policy functions) were not privatised a range of market-like mechanisms was introduced to mimic the effects of the market.
3. Decentralisation: Decentralisation has been another very significant reform of the State which received a boost from decline and fall of military dictatorships and totalitarian regimes, for which centralisation and tight controls used to be conditions of survival, or key elements of their ideological basis. In these countries, the quest for more democracy has been coupled with attempts to abandon a highly centralised, tightly controlled, often paternalistic and authoritarian bureaucratic system in favour of one. This exemplifies the merits of individual initiative and citizen participation in the affairs of government.
4. Debureaucratisation: through re-engineering and deregulation...in the pursuit of efficiency. This is concerned with promoting cost-consciousness, efficiency and effectiveness in the public service.

The stress on accountability has been linked to an effort to bring policy and administration back to the source - the citizen - to whom it belongs, and to account for

efficient expenditure of public funds. In other words, there has been an effort to bring government closer to the individual citizens, making it more intelligible, as well as more accessible, clipping away its prerogatives, cutting its staff down to size, empowering the public and widening the choices. The right of the public to know and even to be involved in the design and practice of public policy has been reaffirmed. This is a development whose implications have only been apparent in recent decades (UNDP, 2002).

2.3.3.4 E-Government and NPM

Public administration has been reformed by NPM but its several aspirations can only be achieved through e-government. In its special survey on e-government, The Economists argued 'reinventing government, a fashionable but premature idea a decade ago, is at last being made possible by the Internet' (Symonds, 2000). E-government can provide the opportunity to bring about the changes that were highlighted during public management reform era. The use of information and communications technology in government is proceeding at a great speed and pace and more change to the operations of government than before can be expected.

NPM has become the underlying concept and a goal for e-government. While the new reforms stemming from new public management and e-government are stirring, suggesting a successful case of marriage between the two, 'technological' and 'organizational' variables, the risk of turning the idea to a fallacy has been discussed by scholars (Homburg, 2004). Consideration of various emerging trajectories, as a result, and their requirements is for instance one of the issues. The accountability and the architecture of the information provision, as an example, can have mutual impacts, and hence it is suggested (UNPAN, 2002) that reforms adopting a new public management or an e-government flavour therefore urge their initiators to reconsider basic concepts of accountability and information architectures as elements of the new government.

NPM has already introduced many new ways of thinking, methods, and skills to public organizations. However, the emphasis on "governance" has brought additional and significant change to government institutions. In fact, e-government policy now is typically aimed not only to introduce new methods and/or skills to the decision making and management processes, but also to revise the process itself to involve many stakeholders that had been somewhat marginalised in NPM-oriented and traditional

policy making processes. Because of its technological characteristics, many e-government projects have been accepted rather easily by the existing public management systems, although this has revealed many contradictions in public organisations (Fountain, 2001).

E-government policy has characteristics different from most other public policies. Usually, public policy is characterized by regulatory and/controlling intentions and actions of government towards private sector activities and initiatives. The reasons vary from market coordination, consumer protection, to security control. To the contrary, e-government policy has unique characteristics different from other public policies. It is, first, overall policy, covering different economic sectors. It deals with the policy making process and the organization and management of government in general. As it influences how to manage institutions, how to decide policies, and how to implement them, it is an area that spans different policy fields.

2.3.3.5 Discussion

NPM is considered as a vision, idea, ideology or framework and pathway. This frame of work for key policy makers and executives in western and developed countries generates a structure of meaning, values and solutions to exit from a twofold crises in organisational and institutional aspects of both political and market institutions.

This framework during the past two decades, based on the concept that market is good and state is not, has been implemented and progressively improved by law and paradigm shift in developed and advanced developing countries as well.

This organizational change provides a fruitful opportunity for private sector and market institutions, exogenously, in the forms of restricted withdrawal of government agencies in business activities and rent generation without sourcing and nationalisations of natural monopolies. To make a competitive circumstances and marketisation of previous government services are diffused.

But in the middle of 1990's failure of market institutions on the one hand and the emergence of the ICT on the other hand led to a new solution and opportunity for both parties, the market and the state with the mediatory of information and knowledge management in managerial aspect and ICT under the banner of e-government as a technological enabler and tool of the change management. The restricted centralisation

that was a key approach in limiting local governments' intervention with market could now through e-government enable government to do either decentralisation or recentralisation, depending on the case, in a flexible manner. In this way tackling barriers such as hierarchy, labour division and boundaries of government's organisations using e-government takes the government closer to citizen and support development of integrated government.

But the story for developing countries could fundamentally be different. In the developing world that still is passing the stages of old bureaucracy to NPM, as a critical juncture, or even stalled in primitive stages of this process the relevance of applying the ICT to accelerate the change and provide new platforms of transformation is questionable. The experience of past initiatives in economic, political and administrative packages such as Washingtonian consensus, which have practically shown the growth and development in developing states as the result not only did not progress but either stopped or even pushed the states one step back by falling them in a duality space and dilemma and producing more fear of changes, could imply that failures of e-government can easily be expected.

2.3.4 Institutionalisation (New)

Previously we discussed that e-government is a socio-technologic phenomenon which can be set up on a new-liberalistic social context (Heeks, 2005), followed by a debate about capability of the concerned society in terms of modification or adjustment with a liberalistic approach. The question here is, whether key decision makers of e-government could decide about and implement change of political and economic institutions, or in other words whether they are aware and alert of social and political implications of decisions they make or not. New-institutionalist scholars here, provide a set of theories under *rational choice*, describing structural constrains and motivations encompassing policy makers (Thelen, 1999). Moreover, observing e-government from the view of its multi-contextual nature, led to realise that e-government enactment (Fountain, 2001, 2005) with a set of stakeholders who hardly have convergent interests, perceptions and cultures without understanding the game itself and its rules in this ground is questionable. New-Institutionalisation theories can help us to conceptualise e-government in this arena. Hence, institutional perspective can give a relatively integrated analytical tool for an in-depth analysis of concerns with regard to e-

government in developing world in general and for the purposes of this research in particular.

In this part, the literature on institutions and institutionalisation concept and theory will be reviewed. We then use the results to examine the type or approach to institutionalisation that can work in developing world and lead to technology enactment.

2.3.4.1 What are institutions?

From a comparative political discipline perspective, March and Olsen (2006) emphasise the endogenous nature and social construction of political institutions, and introduce institution as:

An enduring collection of rules and organised practices, embedded in structures of meaning and resources that are relatively invariant in the face of turnover of individuals and relatively resilient to the idiosyncratic preferences and expectations of individuals and changing external circumstances ... constitutive rules and practices prescribing appropriate behaviour for specific actors in specific situations. ... structures of meaning, embedded in identities and belongings: common purposes and accounts that give direction and meaning to behaviour, and explain, justify and legitimate behavioural codes... structures of resources that create capabilities for acting... empower and constrain actors differently and make them more or less capable of acting according to prescriptive rules of appropriateness.

Institutions are also reinforced by third parties in enforcing rules and sanctioning non-compliance (Helmke and Levitsky, 2002). Scholars of political institutions (March and Olsen, 2003) believe that institutions have an ordering effect on how authority and power is constituted, exercised, legitimated, controlled and redistributed. Institutions affect how political actors are enabled or constrained and determine the governing capacities of a political system (North, 1990).

With an economic lens North (1990) suggests institutions as the rule of play in a competitive group play. Greif (2006) ranges societies' features to "technological", which impact economic outcomes such as geographical location, useful knowledge, and capital stock, and "non-technological" such as laws, enforcement methods, ways of

allocating and securing property rights, and levels of corruption and trust. In his belief, such non-technological features can be accounted for institutions.

Institutions as North (1990, 1993) suggests come in three forms: informal constraints, formal rules, and enforcement mechanisms. Informal constraints are a component of social culture such as norms, beliefs or customs. They do not change easily or through change of official rules (North, 1993), while formal rules may affect or get affected from informal constraints. These could be to facilitate economic issues such as property right, or support political factors such as parties' activities (North, 1990). To interconnect political system and economic condition, North (Ibid) claims that a special structure of property rights and quality of its enforcement interlinked with special characteristics of political rules and their enforcement is needed.

Greif (2006) acknowledged that the quality of the institutional foundations of the economy and the polity is paramount in determining a society's welfare.

Institutions are different from organisations and act as another source of change in socio-economic sphere. Differences between Institutions and organization are necessary to understand. Both organise and structure the reciprocal human actions but they differ in players and rule of plays and would not be confused (North, 1990).

Organisations are groups of people who share goals around which they gather (i.e. political body: parliament or monitoring boards; economic bodies: enterprise or worker's federations, societal bodies: churches and sport institutes) but Institutions generate the opportunity and risks for organisations to follow their aims and benefits or survive themselves.

Institutions could come to existence suddenly (i.e. constitutional law) or grow sluggishly and gradually (Common law) during a long period of in a nation's history (Ibid).

According to North (1990) in context of world trade which is driven by impersonal exchanges, existence of a neutral third party is required. Development of credible commitment and existence of specific political bodies to safeguard non-violation of contracts is essential for economic growth. North (1990) views organisations as the purposeful entities to maximise objectives of their creators within institutional constitutions which determines the incentives for the type of knowledge and skills that pay off. He believes this knowledge has implications for the long-run development of

the society. Organisations can modify institutions when the change will be more profitable than holding the current constraints; and while the society pushes them to invest in skills and knowledge that contribute to profitability (North, 1990-1993)

Most of the arguments on path dependency, as Thelen (1999) states, stem from the economists' works who seek recognising technological trajectories. Associated with the idea of "QWERTY keyboard" as a witness for lock-in path dependent, the argument (David, 1985; Arthur, 1989) made for peculiar and erratic causes that can achieve an initial advantage over alternative technologies and prevail even if in the long run the alternatives would have been more efficient.

Political scientists, in the same line suggest that politics, like technology, cope with some elements or capability of the change, for instance agency or choice, but once a path is taken then it can become "locked in," so relevant actors could not adjust their strategies out of this established pattern (Thelen, 1999, p.385).

Formulating the approach of path dependence, Schwartz (2003) offers three interconnected arguments: in the first small contingent should have long permanent property (cited by Mahoney, 2000); in the second, increasing returns to institutions act as a mechanism for institutional reproduction and illustrate the reason that agents often oppose to transform from the current institutions; and finally there is a similarity between path dependence's "critical junctures" (Collier and Collier, 1991) and the evolutionary concept of punctuated equilibrium. To develop the latter point, Schwartz claims that institutional evolution is a consequence of the exogenously induced process of institutional change. Hence "critical junctures" is a separator between the exogenous mechanisms for production and the endogenous increasing returns which involve with reproduction of institution.

Mahoney (2000) conceptualised the critical juncture and reproduction mechanism in the context of path dependency. By highlighting that the 'majority of comparative-historical studies do not offer specifically path-dependent explanations', he argues that all path-dependent analyses at least have three defining features: first, "causal processes"; second, "sequence" where early historical events are contingent occurrences that cannot be explained on the basis of prior events or "initial conditions."; and third, once contingent events emerge path-dependent sequences through a relatively deterministic causal patterns begin tracking a particular outcome.

Mahoney (2000) introduced two types of path dependency reproduction, 1) self-reinforcing sequence, what often economists identify as "increasing returns" and 2) reactive sequence, where chains of sequential, linked and interdependent events compare these two perspectives.

In a reactive sequence, each event in the sequence is both a reaction to antecedent events and a cause of subsequent events and early events is significant because a tiny change can gradually build up a big different in outcome. "In a reactive sequence", early events trigger subsequent development not by reproducing a given pattern, but by setting in motion a chain of tightly linked reactions and counteractions" (Mahoney, 2000).

In contrast, in self reinforcing approach a special mechanism for instance increasing return in a utilitarian model by expectation of more benefit the field, functionalistic approach and functional consequences for integration, adaptation and survival of the whole of the system which the institution is settled (Isaac, et.al, 1994) quoted in Mahoney, 2000).

Mahoney (2000) also refers to two other sorts of self-reinforcing mechanisms including power and legacy which in first a group of elites support the existing institutions and other players by evaluating condition following their benefits such as utilitarian approach.

Interrelated with utilitarian approach and power perspectives are "Rational Choice" institutionalists who take the assumption that political actors are rational and seek maximisation of their self-interests, accommodate in general through the structured situation, form another perspective of institutionalism. One of the main features of the rational choice is its assumption of equilibria and its view of institutions as coordinating mechanisms sustaining these equilibria (Levi, 1997a).

From a social point of view of institutional reproduction, DiMaggio and Powell (1983) suggested three forms of reproduction process: coercive: related to state force, regulation and control; normative: resulted from professions and education effect; and mimetic forces stemming from customs and response to uncertainty. Scott (2001) further developed three pillars of the institutional order: regulative-rule and sanction, normative-evaluating and obligatory, and cultural/cognitive-shared conceptions and understandings exchange.

By this assumption, institutions are stable until disrupted by exogenous forces such as war or international economic evolutions which can cause disorder in the state's authority, or a novel decree that may shock institutionalized arrangements (Fligstein 1990).

2.3.4.2 Discussion

For e-government implementation in developing world at least economic and political institutions should come under reconstruction and modification process. Lack of democratic sphere makes it difficult for policy makers to understand and analyse the interaction and conflicts of institutions. Global change process may dictate deep reform or revolutionary strategies for those policy makers but they (depending on the political system in terms of electoral system or authority orientation) in order to remain or maximise their time in power they may have to accept going into a cognitive, try and error process not only due to technology related push and change but also for engaging in an unwanted critical juncture, which may lead to a more risky situation. Nevertheless since the inherent concept and content of organisation in developing countries usually is not the outcome of a legally established system/process (Weberian model) it could not send a proper message for market institutions.

Institutions change is possible and can be designed but while a general consensus and conception may not be available, an exogenous shock of considerable impact can work as a critical juncture for their generation and development.

Planning for e-government implementation and planning for development can become a top priority in a government's agenda in developing states, but due to absence of path dependency – similar juncture and sequence – the grounds for getting to the new equilibrium or shift to new growth paradigm is not ready. Although increasing global uncertainty in every aspect may provide a rational for imitating e-government as an approach or practice model, but due to its links with other pre-requisites and learning such as participation in social aspect, accountability in bureaucracy and responsiveness in political surface this rationality can easily change when e-government implementation fails during the social transformation step. Pushing towards Economic liberalisation as a prerequisite for e-government, when the context is based on a utilitarian approach, would work against rational choice making a consensus around almost impossible.

2.3.5 Development (socio-economic)

To examine the prospect of bridging the gap between developing and developed, within the context of our research, that is application of ICT and implementation of e-government, in this part, we look at a brief but accurate account of development debates by highlighting the ongoing situation on both sides, developed and developing, and to find out how e-government can bring the two sides closer. The Outcome of this part will include 1) the core problems of development; 2) the main required mechanism or driver of development; 3) the features of e-government that can tackle development problems; and 4) possible scenarios.

2.3.5.1 Development definitions

Developed and developing world can be distinguished by the income index. World Bank classifies the developing world as countries having “low” and “middle” income. It is observed that these countries make up over 5 billion of world population with approximately 6 trillion dollars (based on 2001 figures: World Bank, 2003) of national income, to be contrasted with approximately one billion people in “high” income zone of developed world who generate 25 trillion Dollars Ray (2007). The experience of the past fifty years has demonstrated that development is possible, but not inevitable (Stiglitz, 2000). While a few countries have succeeded in rapid economic growth, narrowing the gap between themselves and the more advanced country, and bring millions of their citizens out of poverty, many more countries have actually seen that gap grow and poverty increase.

Historically, as Adelman (1999) states: “No area of economics has experienced as many abrupt changes in leading paradigm during the post World War II era as has economic development”.

She advocates (1999) that since development is a policy science, its alteration will have implication for development policy and directions about “role of government in the economy; its degree of interventionism; the form interventionism; and the nature of government-market interactions.”

Adelman refers to sources of change in the world economy, and suggests that searching for a single-cause or constraint (X), and hence single-remedy has contributed to such changes. These constraints according to Adelman can be many things including

“Entrepreneurship” attitude. What stands in the way of industrial transformation is a dearth of entrepreneurship in the simple sense of “the perception of investment opportunities and their transformation into actual investments (Hirschman 1958). Adelman (1999) suggests in the absence of private entrepreneurship, governments would have to continue to perform the entrepreneurial job while at the same time fostering the development of a cadre of private entrepreneurs willing and able to take over.

Globalisation driven International Trade is another possible factor which can play as a substitute for low domestic aggregate demand. The governments should remove barriers to international trade in commodities.

The next possible factor is the government itself, which is the problem rather than the solution to underdevelopment (Krueger, 1979). It is suggested that under such circumstances, the best actions governments can undertake to promote development is to minimize their economic roles. Liberalizing domestic and international markets for both factors and products is the prescription of choice (Adelman, 1999).

A different, more recent, underdevelopment theory associated with the Chicago school (Lucas 1988 and Romer 1986) identifies low-human capital endowments as the primary obstacle to the realisation of the economies of scale inherent in the industrialisation of developing countries. Ineffective Government has been a more recent cause for underdevelopment.

Migdal (1988) sees state-society relations as a potential obstacle. The “new institutional economics” Evans (2005) and institutional analysis moves to the centre stage in development discourse. Wade (1990) argues that “state leadership” in particular sectors were crucial to the transformation of key sectors. State policies do not just change the behaviour of existing actors, they also help bring into being the societal actors without whom industrial development would be impossible. North (1991) observed that while institutions frame all human behaviour, it is through organizations that people carry out complex social interactions. Understanding human development requires understanding how institutions shape the kind of organizations available for sustainable human cooperation (North, 1991). He adds that the institutional structure of a society determines the kind of organizations that can be created and sustained. North’s observation stated (1991) that all economically developed countries are also politically

developed, meaning that political and economic systems are organically related, as they are both parts of the same social order. One of the principal effects of North's contribution is to make institutional politics a central determinant of growth. In the new growth theory, politics enters growth equations because political variables may influence the incentives of economic agents to develop new ideas. In North's analysis the political characteristics of institutions do more than creating incentives. They become embedded in the assumptions and behaviour of economic actors with a thoroughness that makes them likely to persist in "path dependent" ways. The "institutional frameworks" that North considers "the underlying determinant of the long-run performance of economies" (1991: 107) are analogous to what sociologists might call "a normative order." They explicitly include informal norms and customs as well as formal rules and procedures.

Evans (2005) followed the new institutionalism approach and linkages with new development paradigms such as the "new growth theory" and Sen's (1999: 291) participatory approach. He agrees with Hoff and Stiglitz (2001: 428, 389) that "shortage of capital must be a symptom, not a cause, of underdevelopment." Toey (2003) summarise the impact of "modern economics" on the study of development with a simple assertion: "Development is no longer seen primarily as a process of capital accumulation, but rather as a process of organizational change."

2.3.5.2 *New Growth Theory (NGT), a knowledge driven perspective of development*

Associated with new institutionalisation framework—path dependency and self-reinforce sequence approach in utilitarian explanation—the new growth theory (NGT), suggests a model of development which theoretically resolves the problem of physical resource and technological disadvantage in the developing context. According to NGT, technology and knowledge as the result of economic activities, unlike physical resources, fall within the increasing returns dynamism which impels the process of economic growth (Cortright, 2001). The increasing return model serving this theory to stand against the classical micro economic theory *-decreasing return-* which assumes that: at a particular volume of production-in any economic areas – adding more input would not be resulted in output proportionately, hence producers should keep the size of the firm in boundaries of this volume "decreasing return". In contrast, according to NGT, using innovative ideas and knowledge can happen repeatedly -with zero cost –

consequently, output could be more volume in production without more consuming the limited resource.

Cortright (2001) advocates following implications from the combination of Increasing Returns and Idea as Technology:

1. Limitless Opportunities for Growth;
2. Markets Tend to Under-Invest in Knowledge: In the physical economy, with diminishing returns, there are perfect prices; in the knowledge economy, with its increasing returns, there are no perfect prices (Romer quoted in Kurtzman 1997).
3. Knowledge-based economies tend towards monopolistic competition ;
4. Economic outcomes are indeterminate and multiple equilibria are possible, as Romer (1994.b) stated: "Once we admit that there is room for newness – that there are vastly more conceivable possibilities than realized outcomes – we must confront the fact that there is no special logic behind the world we inhabit, no particular justification for why things are the way they are. Any number of arbitrarily small perturbations along the way could have made the world as we know it turn out very differently".

New growth theory NGT notion – technological changes— account for most growth, but the production of new ideas to be considered as an "endogenous" factor (Solow, 1957). Ideas in this theory are "no rival" goods, simultaneously useable by any number of different people at the same time, and that once a useful idea or piece of knowledge has been created the cost of using it again is essentially zero. Returns therefore expand with the scope of its use, without corresponding increase in costs (Romer, 1993a).

It is believed widely that ideas, that form the basis for organizations and institutions, are now playing a more influential role in development than "technologies" (associated with changes in physical processes of production).

Cortright (2001) argues that New Growth Theory helps us to make sense of the ongoing shift from a resource-based economy to a knowledge-based economy. It underscores the point that the economic processes which create and diffuse new knowledge are critical to shaping the growth of nations, communities and individual firms.

According to Cortright (2001): New Growth Theory suggests five broad strategies:

1. Economic strategies should focus on creating new knowledge, not just in universities and laboratories, but by businesses as well.

2. States and communities are not powerless to influence their economic destiny.
3. The path dependent quality of growth means that even in an Internet economy, the opportunities for future growth will depend, in large part, on the current local base of knowledge and expertise, and communities should seek to build on this in their strategies.
4. Ideas of all kinds, large and small, play a role in economic growth. In many ways, structuring businesses to encourage innovation by front-line workers is as important to the knowledge economy as undertaking scientific research.
5. Economic development is not a zero sum game; knowledge-based growth can stimulate a self-reinforcing cycle, in which faster growth triggers additional knowledge creation, and more growth.

Development is also seen as a social transformation (Stiglitz, 2000). Indeed, one characteristic of many less developed countries is the failure of the more advanced sectors to penetrate deeply into society, resulting in what many have called “dual” economies in which more advanced production methods may co-exist with very primitive technologies. Criticising the Washingtonian consensus Stiglitz (2000, 2001) claims this prescription was not concerning the institutional characteristics of countries. He defined the technology as a factor that can change available input to exportable output. He centred quality of education and social knowledge and men and women’s contributions to social affairs and their participation in the democratic process as the major conditions for this transformation. Without this transformation, Stiglitz (2000) believes every privatisation, liberalisation, deregulation, and linkage with global economy could put the country in risk.

A recent contribution to the development theory is Sen’s (1999) “capabilities” approach and theory. Capabilities are the set of valued things that it is feasible for person to do. The capability approach shifts the focus to the institutions which facilitate choices of developmental goals. It puts the institutions of collective decision-making at the centre of any economic theory of development. Capability approach centres the institutions to the core of development theory, keeping in mind that the ideas are the sources of inequality and inequality tend to unstable development.

2.4 Conclusion

Responding to the question of the research the study of literature testified that e-government functionalities and features can provide a range of ideas, and provide tool kits to meet the major goals of states in developing countries. But implementing e-Government as a socio-technological program, adjusted with specific institutional circumstances—namely the new liberal values— and at organisation level – referred to as technology enactment – has to go through a cognitive process in which participation of key members of government organisations is essential and decisive.

Social transformation in terms of perception and behaviour of individuals, public and private sectors, family and communities is increasingly assumed as the right direction towards development. This process involves bringing all social players to the game of policy making and policy executing, or “governance”. In the same time most of the existing mechanisms show a tendency in organisations to reproduce their current state and process. The result of this situation is that developing states by adding e-government projects to their agenda, attached to public reform project or NPM, involve themselves in a very comprehensive plan that is unprecedented for them, something they had never touched before. This is while these states are commonly characterised with weak and corrupted organisations, disparate and low density social networks dominated by strong traditional (against modern) institutions.

On the other side, in a modern context, freedom -political development - is assumed as a precursor and perhaps a pre-requisite of development. Freedom or democracy is the way for contribution of the society to rebuilding of social institutions. Adding to it is also interdependence of economic growth and political development where generalisation of social access to economic and political resources of the society is a condition of development. In this way governance is acknowledged as recognition of public value and human rights over the political elites’ priorities. All these lead to conclude that, as the literature states, countries which have not achieved democratisation criteria cannot achieve development. Adding to this is the enduring challenge for undemocratic states’ policy makers to trade off between being in power and following development strategies. This situation has led to a chicken/egg situation in developing countries, where on the one hand democracy should provide conditions for participation of people to reform the institutions and change inefficient behaviours and habits, and on the other hand democratic governance is the natural outcome of political institutional change. In

this uncertain and risky situation and dangerous journey we come to face a plethora of best practices developed and promoted around the world (such as most of research and models and solutions on e-government), desires, wishes and goals promised by states' leaders (such as the Millennium Goal), an international benchmarking model (e-readiness), and loads of ideas, paradigms and prescribed packages prepared and made available as solutions.

A disturbing fluctuation in development models, a variation of attitudes and approaches regarding state and market roles such "Hyperactive Government" Vs. "evil-government", marketization, Human capital, import substitution to improve export and so on have questioned the credibility of the paradigm of development. In the same time it is now believed that qualification of the hosting state-adopting and implementing the paradigm- and its status in the global governance is more important in producing the desired outcome.

Good governance and e-government in particular hence could imply that these solutions may be part of the power-relation between developed countries and MNC's profits and lead to grow of suspicion about the solutions. It is basically advocated that governance features such as collaboration of government body with public administration, stakeholders and citizens throughout the policing process can be enhanced by technology, manifested in e-governance features. However considering governance as a path dependent framework which emerged in the public administration and international trade scene following introduction of NPM in some European states, with a long list of criteria, contributes to the suspicion that advices for deploying governance model for economic growth in developing countries, which in general have not and perhaps cannot successfully experience NPM, is more like taking the goal instead of the means.

Furthermore from an institutional perspective we have concluded that e-government initiation in developed states has been the result from the successful experience of IT and Internet utilisation in business (e-Business) in the same context, "developed countries". This, joined with another exogenous demand to change the role of the state in the favour of market, after NPM reform, has changed the governance model of states. Converging with another multidimensional but indigenous demand—Managerialism—governance has framed a critical juncture with a self-reinforcing mechanism which can be understood from either a *functionalistic* or *power explanation* or *increasing return* view.

In developing states, in contrast, technology and international economy changes on one side have acted as a "paradigm or preference equilibrium" to provide powerful resources for institutional change, and systematic pressures from global governance system have worked to reinforce mechanisms for driving countries to adjust with global standards and rules - such as good governance, e-government, economic freedom and democratization. On the other side however more uncertainty has come around instead, for instance in terms of destiny of policy makers— a power explanation – or risk of change within power relations or risk of survival of regimes –a functionalist explanation. Besides by weighting the risks and benefits of e-government implementation in developing state, in which managerialism and devolution are not practiced yet, managers may see no reason to engage in an unclear and uncertain program that admittedly could lead to opposition of the staff unless there is a central force from key policy makers behind it.

Furthermore self-reinforcing of the institutions cannot be supported by functionalistic view – opposition to survival of the system - and power explanation— being against protecting the power relations. From a utilitarian perspective also –choice of key policy makers through cost benefit analysis — by considering the high immediate cost of physical infrastructure (of ICT) and some elementary social costs—unemployment— cannot support self-reinforcement needed in the move towards full potential e-government. This issue at organisational level is also against the rational choice. This is because structural reform, even if not impossible, are expected to have long term outcomes, and the basic logic of benefits maximisation and keeping the existing benefits may encourage policy executors to accommodate and maintain the current institutions. Also at organisation level related with development strategies in terms of "technology enactment", while political culture in developing states is not compatible with a participatory process, a lack of meritism in employment system could provide the excuse for enforcing a top down approach in implementing e-government. Here the path dependent perspective cannot offer any type of self-reinforcement. In contrast the top down strategy can lead to accumulation of a repository for future steps of e-government implementation.

In view of globalisation related with development strategies general experience of state policy makers about global governance in terms of changing its prescriptions and also the recent concerns raised with regard to the shortening of global economic recession

periods—for instance less than a decade, from East Asian recession 1999 to credit crunch of 2008- cannot provide a support that the *reactive sequence* mechanism for reproducing the institutions compatible with the global governance through *positive feedback* and similar mechanisms could work.

In this context, initiation of e-government cannot be counted as an institutional change with planned expectations and outcomes in developing countries. Good governance and e-governance outcomes do not have the chance to easily be adopted and implemented in developing context without bringing institutional matters into the plan for implementation.

Finally e-government's full potential that potentially could play a unique role to institutional change and to be highly proper tool to supervise the social transformation and social network, may still have a chance to employ in a developing context. Where the problem of overloading and shock treatment in state, miss-perception among relevant players could sorting out through an institutional change.

CHAPTER THREE

The research methods; design and implementation

3.1 Introduction

This study has one primary aim: to examine the process, trends and categories of e-government implementation in developing countries in order to provide a means of understanding and projecting future trends of e-Government, and propose and examine theories as well as practical approaches for implementing e-government. In this section the method adopted to carry out the research for achieving the objectives is explained and the design process and administration of the methods applied are discussed.

3.2 Theoretical Approach

Social science research is based on logic and empirical observations. In his book, "*Constructing Social Research*", Charles C. Ragin (1994) writes that Social research involved the interaction between ideas and evidence. Ideas help social researchers make sense of evidence, and researchers use evidence to extend, revise and test ideas". Social research thus attempts to create or validate theories through data collection and data analysis, and its goal is exploration, description and explanation. Research can also be divided into pure research and applied research. Pure research has no application on real life, whereas applied research attempts to influence the real world. Social research can be deductive or inductive. The inductive inquiry (also known as grounded research) is a model in which general principles (theories) are developed from specific observations. In deductive inquiry specific expectations of hypothesis are developed on the basis of general principles (i.e. social scientists start from an existing theory, and then search for proof). Deductive reasoning, sometimes called deductive logic, is reasoning which constructs or evaluates deductive arguments. In logic, an argument is said to be deductive when the truth of the conclusion is purported to follow necessarily or be a logical consequence of the premises and (consequently) its corresponding conditional is a necessary truth.

In social sciences, the concept of "theory" may be used to denote various things from *grande theorie* (such as Weber's theory of bureaucracy) to minor working hypotheses. Also theory could be meant in a formal way like a theory developed for a particular

conceptual area of enquiry (for instance, socialisation or organisation decision-making), or could be referred to as a “substantive” theory developed for an empirical area of enquiry. This research seems to relate more to the third type which concerns likelihood of e-government implementation success in terms of socio-economic development, and in the context of developing states.

In the absence of any theories, two main approaches exist in social sciences for investigators. One is the logico-deductive approach, whereby theory is generated from what Glaser and Strauss (1967) characterise as “a *priori* assumptions and a touch of common sense peppered with a few theoretical speculations made by the erudite”. In this approach, the theory is broken down into a number of hypotheses which are then tested against the data elicited. The second is the grounded approach. Here, the investigator sets out with no a *priori* assumptions, while he or she may begin to develop and test hypotheses in the process of collecting data, theory is developed only after the data has been systematically collected and analysed. Initially, data collection is likely to be guided by structures/processes which are commonly held to characterise the situation under investigation.

The appropriate method can depend on some factors including availability of relevant and established substantial theories as well as the investigator’s personal inclination or training. In this study the choice made based on the fact that the subject relates to a number of disciplines within social-political-economic sciences, and that within each area some considerable work have been developed and theories exist. In this situation, the logico-deductive approach could lead to a theory to explain or predict the way in which developing countries could be far more likely to yield a positive result from implementing e-government and implement it successfully. This could be achieved through deduction from literature and examination of secondary data to develop working hypotheses and lead them to a substantive theory to deliver the objects of the research.

In research design the research has taken advantage of a combination of quantitative data, qualitative data, as well as a mixture of techniques for developing hypotheses, collecting and administering data, and analysing them. This method can be called a mixed method, which despite its benefits has been found as a relatively scarce type (Mingers, 2003; Gil-Garcia, J.R, 2005) This mixed methodology should be used in triangulating different data sources and to analyze complex social phenomena (Bennet

and Elman, 2007). Building e-government initiative in a developing context to full potential is a relatively complex social phenomenon that needs to be studied using more than one method.

3.3 Research Design

Over the past few decades a more diverse range of research designs have been developed. Means such as observation/manipulation and observation of natural phenomena to histories, analysis of archival material, surveys, case studies - or even a combination of such research designs have been used. The choice should be determined, as Yin (1989) observed, by objective factors such as the extent to which the investigator has control over the behavioural events in question, the type of research questions which the investigator wishes to pose and whether he or she intends to focus on contemporary or historical phenomena.

From the available options three field research methods seemed to suit the subject of this research. These are secondary data analysis, case studies and perhaps limited survey of subjects within the targeted organisation, beside literature and desk based research. Surveys are more appropriate for questions starting "who", "what", "where" and "when", which relate to eliciting data relating to frequencies or incidence. Questions starting "how" and "why" are better answered by case study method. This investigation seemed to need the use of both incidence type of data and establish the process underlying decisions, policies, implementation strategies *etc.*

The survey based data part of this research has however is set using secondary data collected by international governance organisations (IGOs) on states' socio-economic development, political issues, ICT and e-Government ranks and status.

For the main field based research we had to employ a research design based on case studies. As Yin (1989) pointed out, a research design based on one or more case studies is particularly appropriate in a study to be conducted in a "real-life" context over which the investigator has little or no control. Case studies are also eminently suitable for investigations which focus on contemporary, as opposed to historical phenomena – *i.e.* studies which are concerned with the present and immediate past, as opposed to the "dead" past. A further, major advantage of case studies is that they do not require the investigator to fix the research design at the outset.

The case studies offer other advantages in the context of this study as well. This includes their ability to incorporate evidence from a wide variety of sources such as interviews and observations.

Case studies could have complications too. Yin (1989) pointed out that whereas the data-collection phase of a survey or an experiment is a routine, more or less mechanical process, the data-collection phase in case studies is seldom routine - particularly where data elicited through interviews is concerned. It is liable to make great demands on the investigator's intellect because there is - or should be - a continuous interaction between the theory being investigated (or generated) and the data being collected. Another common criticism of case studies is that they allow equivocal evidence - or, even worse, biased interviews - to influence a study's findings. To have a good case study research and ratify possible bias in data the investigator must be aware of this and to take steps to reduce bias to a minimum by using multiple sources of evidence, by developing converging lines of enquiry such as triangulation.

Although case studies are criticised for providing a basis for generalisation, however Yin (1989) stresses that the goal of case studies is not to enumerate frequencies (statistical generalisation) but to create, expand and generalise theories (analytical generalisation). Similar to experiments, case studies generalise to theoretical propositions, rather than populations/universes, which was seen to fit the aims and objectives of this study.

As mentioned in the research design we used a combination of various methods. Although this could bring complexities with it but apart from necessity of such approach the design of different parts were carried out in a fashion that each section relied on the previous one and contributed to the next and present a fine flow and balance of techniques and tools.

3.4 Research steps and methods design

The research employs four complementary methods with case study in the centre and as the main method. The methods and the sequence are:

Desk based exploratory study of e-Government from the angle of multiple disciplines.

A confirmatory and exploratory quantitative data analysis using secondary data case study of organisations in a developing country supported by:

An advisory expert panel to help and oversee development and calibration of research tools and select the candidate organisation In-depth case study enhanced by a questionnaire survey of the spotted and selected organisation and some of its stakeholders. The study model is shown in figure 3.1:

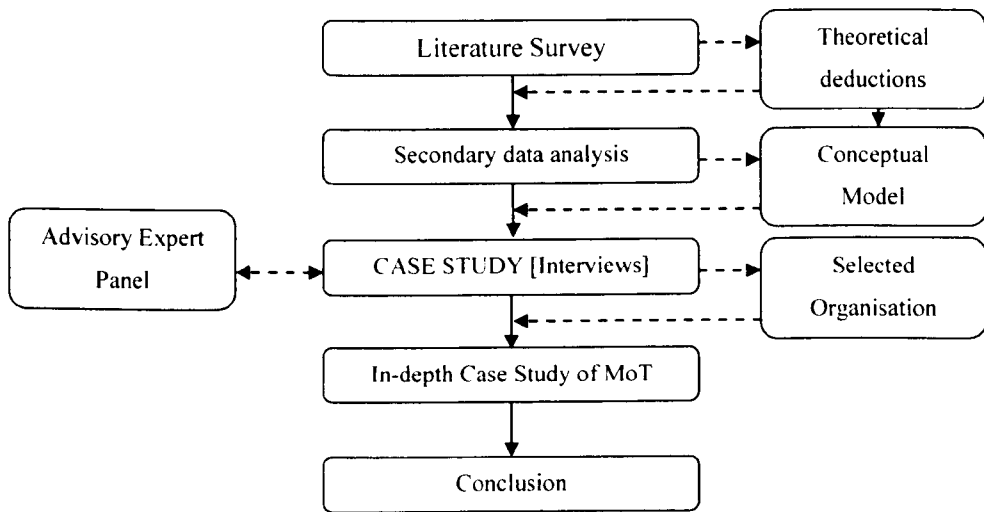


Figure 3.1 Research steps

3.4.1 Step 1. Literature Survey

A literature review is an essential part of any substantial study. It will assist seeing what has and has not been investigated, develop general explanation for observed variations in a behaviour or phenomenon, identify and develop hypotheses for the research. An extensive review of the literature assists in building theory and understanding (Carson et al., 2001). It will help substantiating the research claims and thoughts, and concepts developed accordingly. In such approaches the researcher must document the source for the rationale behind the research and theoretical/conceptual framework developed.

Literature reviews can be classified as secondary sources, and as such, do not report any new or original experimental work. According to Cooper (1989) "... a literature review uses as its database reports of primary or original scholarship, and does not

report new primary scholarship itself. The primary reports used in the literature may be verbal, but in the vast majority of cases reports are written documents. The types of scholarship may be empirical, theoretical, critical/analytic, or methodological in nature. Second a literature review seeks to describe, summarise, evaluate, clarify and/or integrate the content of primary reports.

A range of literature reviews may be used including systematic reviews, narrative reviews, or thematic probes (Cooper, 1989). These methods involve the systematic collection and recording of information, including strategies for searching the right sources of information, such as databases, keywords and websites. The study method supports gaining skills in areas such as information seeking which is about ability to scan the literature efficiently, and critical appraisal which is the ability to apply principles of analysis to identify unbiased and valid studies.

In this work the literature plays a crucial role in identifying the research ideas as well as suggesting theoretical concepts and constructs of possible solutions to the problem of implementation of e-government in developing states. Using various methods of literature review such as general knowledge of the area, views from various disciplines including political science and public administration, socio-economic development, e-business and technology enactment, and management science and theories the ideas surrounding the state and situation of e-government in the global scene have been examined. It has been established as the result that e-government full potential implementation is a matter of and result of institutionalisation process within the society. This leads us to believe that e-government in developing countries is a high risk affair and entails considerable consequences if attempted without setting it within a suitable and prepared context of paradigm shift.

As part of this study a systematic review of a large body of literature was conducted to understand aspects related to understanding and perceptions around the concept and idea of e-government. It is depicted as the result that there is very unstable and blur picture of what e-government means and where it should go or take the state to. This adds to the matter of risk and uncertainty associated with e-government successful implementation and hence setting the theoretical conclusions that drive the research to the next step of asking the question what can be done and where the solutions, if any, lie.

3.4.2 Step 2. A preliminary study using secondary data

The critical analysis of secondary data sources has found extensive application in various research programmes. It assists in exploring and understanding research issues, evaluating programme delivery and effectiveness, and in triangulating findings from other data sources. Analysis of secondary sources involves the use of existing data, which can include various aspects of the subject studied. In this case, national and international data on socio-economic and political development have been examined against the state of e-government in developing states.

As with literature reviews, secondary sources are collected and recorded systematically. The collected data was used by the researcher in a variety of approaches to analyse this data, including using analytical frameworks and the computer-based qualitative data analysis tools.

Such techniques have advantages and disadvantages. It is certainly less costly (or even cheap), more effective in terms of time consumption and speed of review due to data being ready. On the other hand we may end up having outdated, inaccurate or incorrect, and limited data as disadvantages of the method.

Secondary data comes in various forms such as print or electronic form, as an online computer database, or on the Internet. Furthermore, it can be in the form of statistics collected by governments, trade associations, local, national or international organisations that exist to collect and sell statistical data, or just as plain documents in archives or company records (Schutt, 2006).

In this study we resorted to existing datasets from international governing organisations such as United Nation, World Bank, Heritage Foundation. We developed simple hypotheses for ease of analysis and used the datasets to test them. We have used simple statistical techniques to examine the correlation between socio-economic and political development indices to understand what areas we should focus our attention to in seeking solutions and ways out of dead end situation. This is attempted in two stages, the second which is instigated by the first round of analysis bringing new datasets into the analysis process. Also the study provides evidence of special cases of success in a number of developing countries which opens our eyes to the facts about how institutionalisation or something to replace or stand for it, may be triggered in a natural or accidental way in certain contexts.

Our conceptualisation of the appropriate approach to implement e-government in developing states is largely helped by results from this study, which in turn depends on the theoretical work developed from literature review.

Further details of the approach are explained in chapter four.

3.4.3 Step 3. Developing a conceptual model

We started the project with a big general question of if e-government, as an emerging and fast spreading technology driven solution for bringing or supporting development can be a viable solution or idea for developing states. Our early understanding from the extant literature and experience of working in such project made it almost clear that we do not have clear answers or sound and relevant theories to assist in making workable and appropriate solutions. We needed theory.

To drive our research questions and results from conducted early studies to a point for generating ideas and solutions (generate theory) we needed a framework that could conceptually bring together all aspects of the work and lead us to a firm and structured model for thinking and a guide for action. This is usually referred to as a conceptual framework. Such models are used in research to outline possible courses of action or to present a preferred approach to an idea or thought. Conceptual frameworks (theoretical frameworks) are a type of intermediate theory that attempt to connect to all aspects of inquiry (e.g., problem definition, purpose, literature review, methodology, data collection and analysis). Conceptual frameworks can act like maps that give coherence to empirical inquiry. Because conceptual frameworks are potentially so close to empirical inquiry, they take different forms depending upon the research question or problem [Shields, P. and Tajalli, 2006].

It is suggested that unlike a theory, a concept does not need to be discussed to be understood. However, since we use several interrelated concepts in a new way, the conceptual framework must explain the relationship among these concepts [Shields, P. and Tajalli, 2006].

In this research the weight and importance of the conceptual model was immense. While there were a plethora of theories in areas and branches related to the concept of e-government, i.e. in political sciences and public administration, in socio-economic development, in information technology, etc., which naturally brought a considerable

level of complexity to the fore in their intersection we did not seem to have established theories of how e-government should be viewed, approached and implemented to become a solution not a new problem for developing states.

The synthesis of the results from literature review and analysis, together with the study of secondary datasets from development indices and e-government ranking led us to set forward an intermediary solution to the problem by bringing more theories together. The conceptual model takes the features of such approach by introducing aspects of the issue in the question (how to implement e-government –for e-governance object- in developing states), and propose the idea of introducing organisation to replace state as a step stone when the state administration system is not ready to undertake the process of institutionalisation and enactment of e-government. For this, general criteria are set for such organisation, which are left for detailing in the field study step, the case study of a developing state.

3.4.4 Step 4. Case Study

Although we have used a range of research means and methods some which are described before, but as justified before the objects of the study could be achieved more reasonably using the case study method as our way of field study and examining our ideas. The approach in this particular study in view of the object of developing working theory is comparative analysis. This necessitates doing more than a single case to get the opportunity for comparison at the level of the primary unit of analysis. Besides, the approach is also targeted towards identifying and spotting the right, if any, candidate to undertake the intermediary leading role for implementing e-government for the state.

The approach also had to be designed purposefully to fit the requirements and goals followed by the research. To start with we had a number of issues to think about and decide on. The number and type of the candidate organisations, the breadth and extent of the study, the process of designing and conducting the study, and the method of analysis and selecting the right candidate bearing the proposed features and characteristics. Since we talk about a state level issue and all interconnected aspects of state governance, development, organisations and agents, and also various theories and models involved (new-institutionalism Vs new classic or Utilitarianism), policies and also state's constitutional, cultural and economic characteristics it was not difficult to

see that we were facing a “Grand Challenge”. A number of theoretical and academic disciplines were involved in this which needed elaboration on each to some satisfactory level and also expert opinion on them particularly when it came to determining measure and criteria and identifying and deciding (judging) the right choice (to eliminate or take on board).

Also since we were targeting state organisations finding contacts, experts and high profile and experienced officials to participate in the study, for information gathering or interviews, was a challenging task. We needed organisations with state wide impacts and jurisdictions and people who know those organisations, their policies and processes to reasonable extent. For this we needed extended help and assistance to make connecting to such organisations more likely and their success more possible. In searching for a method we decided to use an “Advisory Expert Panel”.

3.4.4.1 Advisory Expert panel

An “expert panel” is a specially constituted work group that meets for evaluation. Expert panels are usually made up of independent specialists recognised in the fields covered by the evaluated programme in the evaluation process, usually as a mechanism for synthesising information from a range of sources, drawing on a range of viewpoints, in order to arrive at overall conclusions and a consensus of opinion (yin.2002)The experts are chosen to represent all points of view, in a balanced and impartial way. These experts are independent specialists preferably recognised in the domain of the issues under investigation.

They are asked to examine all the data and all the analyses made during the evaluation, and then to highlight consensus on the conclusions that the evaluation must draw, and particularly on the answers to give to evaluative questions. The panel does not fully explain its judgement references nor its trade-off between criteria, but the credibility of the evaluation is guaranteed by the fact that the conclusions result from consensus between people who are specialists and represent the different “schools of expertise”.

We identified a number of experts from among renowned academics and practitioners and invited them to join the panel. Knowing a few of such experts personally and due to past experience of working for government agencies helped to attract a good number of people with sound and reliable level of expertise.

The process of using the support of the panel included an initial contact sending some brief introduction to the research and supporting documents, arranging meetings to discuss the objectives, and two follow up meetings to present the results and make decision on the candidate organisations.

3.4.4.2 Type and number of organisations to study

The number of organisations was not decided initially, as the idea was to search for appropriate organisations within the state. We took the idea to the panel and used brainstorming to list possible choices and go through a process of elimination of those which are not suitable, appropriate or fitting the objects of the study. We had a few general criteria to start with which included being semi-governmental, and having a level of independence from the state administration in terms of laws and regulations, finances and accounts, and policies and networking. Also being considered as a modern organisation or being prepared to become modern was another general thought. We ended up with six organisations, details of which are described in chapter Six.

Another task and purpose for the panel was to discuss and identify the criteria for selection of right organisation to be taken as the candidate for undertaking the role. These criteria in principle follow the general criteria explained above, but in details so that they can be included in the research questions and interview material. The panel was offered with prepared models which were used for discussion to achieve agreement.

3.4.4.3 Gathering data and evidence: Questions and interviews

The research needed to elicit data and evidence from multiple sources. It was decided that although the bulk of the data would probably be elicited by means of systematic interviewing, we needed to do searches for relevant histories, documents and records too. Official and/or unofficial histories of the organisations concerned, annual reports, mission statements, policy statements etc. were among those. It was recognised that items intended for data gathering were difficult to establish or at least were not convenient due to the weak bureaucracy in the state and its related organisations. Also due to political agendas and issues it was possible to find quite contradictory information from different sources.

Case studies were mainly administered using interview method, which were administered in a semi-structured way. According to Wilkinson and Birmingham (2003), interviews have long been used in research as a way of obtaining detailed information about a topic or subject. It is suggested by Denscombe (1998) to involve a set of assumptions and understandings about the situation which are not normally associated with a casual conversation.

Interviews could comprise of a number of stages. Wilkinson and Birmingham (2003) suggest the following steps shown in figure 3.2:

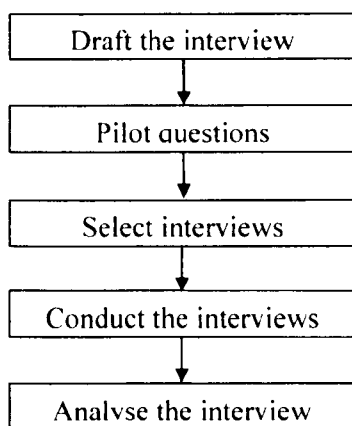


Figure3.2 Developing interview

According to Kumar (2006) the strength of unstructured interviews is the almost complete freedom they provide in terms of content and structure (Kumar, 2006: 123). There are several types of unstructured interviewing; for instance: in-depth interviewing, focus group interviewing, narrative and oral histories. However in a structured interview the researcher asks a predetermined set of questions, using the same wording and order of questions as clearly described in the interview schedule. One of the main advantages of the structured interview is that it provides uniform information, which assures the comparability of data. A semi-structured interview can show the advantages associated with both methods.

After the cases were studied the results were offered to the panel and on a consensus basis a case organisation, the Municipality of Tehran was selected to have the required characteristics for the purpose of the theory.

3.4.5 Step 5. In-depth study of the designated organisation; MoT

The study was designed to investigate the result from case study section, which led to indication of MoT as the right candidate for initiating e-Government project, in as much depth as possible into the candidate organisation. The steps taken in this stage included:

- Determining the study dimensions
- Identifying the subjects for the study including
 - People from MoT
 - People from outside of MoT (Stakeholders)
- Questionnaire design
- Questionnaire administration
 - Workshops for participants
- Analysis

This part of the study aimed to find more data about the attitude of MoT managers and their likely partners in the likely situation of implementing e-governance project. The vision of major players in the municipality towards the future as well as organizational values, and challenges which could trigger institutionalisation shift were among issues to be investigated. The research needed to ask if concepts such as global city, social capital and good governance have been recognised by the organisation leaders and stakeholders, and have any priorities with the leaders and the organisation and not as a slogan.

Relationship between MoT managers and public, and ICT specialist companies and people capabilities and supports and how they are aligned for implementation of e-governance was of concern to the research.

To find answers to above questions a further study was designed and conducted into the case of MoT. The study was carried out using a questionnaire based limited survey of key managers of four clusters in the MoT and its stakeholders. Close ended questionnaires for ease of answering and analysis were designed and two workshops were arranged for the MoT managers to attract some key participants in addition to the

distribution of questionnaires to known and named figures identified through advisory team and other channels (a deputy and an advisor to the Mayor).

Semi-closed questionnaire in four sections and thirty five questions was then produced and reviewed and confirmed by the advisory panel. Each section was designed for a certain group of people from various stakeholders.

The first section concerned capabilities and readiness of MoT. The second section examined views and attitude of IT specialists and experts towards MoT capability in designing and implementing e-government. A third section was also designed to assess the possible perspective of the central government, parliament and also similar or competing organisations in regard with MoT's chance of success in becoming a role model organisation. The final section had four questions for assessing the response and attitude of IT sector (private) and its experts. Nearly every question is supported by at least another one for cross examination purposes, more accuracy and reliability of data collected.

Data collection was a relatively complicated challenge. People coming from a variety of discipline and organisations, with typical bias and with different background held various perceptions about all issues examined in the survey. To explain the ideas of the research to participants, four workshops were arranged at four different dates to suit the time of people. Experts and professional familiar with MoT administration, government decision making system, IT management in parliament and government's body, and IT/ICT professionals from private sector who have had some experience working for/with Municipalities were invited to attend.

Each workshop started with a brief presentation of the research aims and objectives and background. A discussion then was instigated about core points and linkages between different disciplines considered in the research and the necessity for following an integrated perspective of the issue. Afterwards the questionnaires were distributed and filled by participants during which group or one to one discussions were happening. Some people would have preferred to fill the questionnaire after the session. The workshop sessions were found very fruitful and had more outcome than just filled questionnaires. Learning from each workshop was used in the following ones and a few questions were calibrated slightly (not to change the structure causing inconsistency).

To analyse, the studied case answers from questionnaires were transferred to separate tables, which were measured as the averages attribute of the issues within the specific group, and discussed and interpreted. Each section provided space for the respondent to make comments. Comments either explained the reasons for rejecting the question's hypothesis, opened new windows to the research discussion, or gave some innovative suggestions. Collected comments then were summarised for discussion purpose.

3.5 Summary

Qualitative research is frequently criticised on the grounds that it is not clear how the investigator(s) proceeded from the raw data to the study's conclusions. In other words, the analytical system employed is not transparent, provoking questions regarding the rigour of the study and concern that other investigators, confronted with the same data, might not reach the same conclusions.

According to Yin's observation (Yin, 1989) in some investigations based on a case study design the primary conclusions relate to the pooled, embedded units, and the individual cases are of peripheral importance. In the true case study, in contrast, the individual case is the major interest, and analysis of the embedded units is the main focus of attention and should be conducted first within each case, and the results interpreted at the single case level. Finally, the conclusions drawn for the multiple cases become the conclusions for the whole study.

In this study a combination of methods are used to assist the researcher to get through the stages of developing the research question, conceptualising, modelling the ideas and setting study structure and method, and finally doing field study and gathering data and analysing them. The overall approach of the study is exploratory and phenomenological, supported mainly by case study approach.

CHAPTER FOUR

A preliminary study of e-Government development within the UN framework

4.1 Introduction

Our review of the literature indicated that institutional aspects of e-government including barriers to its success has been receiving attention by researchers in the field. However, when it comes to solutions or finding answers as how to get over such barriers implementing e-government, little has been offered, and much of what has been developed is set around and based on modern societies' circumstances. Fountain (2001), for instance has pointed to public organisations' staff participation in choosing and selecting the right technological solution, leadership role of cross agencies (those which play between Central Federal and State levels), or moving towards virtual state, engaging social networks in the process of governance, as solutions. In some other works, functionality of stakeholders is assumed by authors in order to be able to play the efficient role between public-private cross sector relationships (Scholl, 2006).

In some works such as the UN (2002), the solution is suggested to be left to policy makers and politicians and their intuition.

Similar situation exists in the area of economic development and the institutional barriers in its way. For more than 60 years, economists and theorists of the field have jumped from one solution to another (Toey.2003) or have persistently pointed to specific single causes of underdevelopment (Adelman.1999). In particular, ideologically charged views towards capitalist or socialist models were dominant for long which somehow got settled with return to institutionalisation theory. Still the discourse of how institutions should be provided and prepared for development objectives has been left too vague and controversial. Some thinkers seem to have gone to measures, out of desperation, that almost equate to impossible condition. Stiglitz (2000) recognised the solution to come from transitioning societies from tradition to modernity, and Sen (1999) proposed reforming of intellectual premises that build the institution through dialogue and free discussion. North et.al (2009), on the other side, sees public simultaneous access to sources of wealth and power to be the prerequisite of development. These show that while development is a social phenomenon, it is out of easy reach for most societies. Grief (2006) finds development related to social networks

and established behavioural characteristics of the society as well as non-technological capital.

The “New Growth Theory” of Stiglitz and Hoff (2001), started to shed light on the subject. The theory, which this research has close theoretical proximity to, presented the social capital in terms of organisational technology and claimed that the idea can be transferred and implemented within underdeveloped societies and with the support from information technology. According to this theory, ideas and models from developed world can be transferred to developing states and used to prepare[the] grounds for change in vision, mentality and action of players in social, economy and political arenas (Evans, 2005). The problem, in this way, is driven to area of management and leadership, which explains the issues surrounding management of economic and political institutions in a different way. Peters (1999) refers to the evolution of government roles and presents a new interpretation of Governance concept by offering an analogy to Steering for the role of government and relates it to collaboration models between economic (market) and political institutions (connected to power). In this way, the issue of developing and directing institutions enters the political domain and management area. This approach suggests that the state can play a major role in development.

This, however, is just the beginning of the story. What seems to be binding governance, public administration and institutional building and evolution is an intertwining set of socio-economic-political relations. Public administration connects with e-government, technology enactment with institutionalisation, and governance with e-governance. At the same time the traditional indicators and benchmarks for development have remained intact and still are in use for assessment of development status of societies. Indices and indicators have not changed or reconsidered in line with new circumstances of late 1990s and onward regarding institutions. The problem rising in here is that the so called quantitative measures, traditionally used in evaluating development, cannot be applied in the light of qualitative information from ideological values such as those offered by World Bank on Governance or by Heritage Foundation on Economic Freedom, with confidence.

This view was a driver for the study to approach a fact finding mission. The extent and breadth of first-hand data required for such a study (institutionalisation and development) was beyond the capacity of this research and secondary data had its own

problems as mentioned above. To obtain a general view of the state of the problem and open windows to the research questions, we decided to conduct a preliminary study using available data on world economic and social development indicators provided by databases from international organisations such as UN, and other sources of information such as World Bank and Heritage Foundation. This part of the research, in practice, was aimed at:

Providing information from intersection of available secondary data on development and e-government.

Unlocking the area of study and providing a general view by focusing on available details.

Providing a focused perspective of the domain of the study and identifying the main elements to concentrate on when developing the theory or the conceptual model.

Providing a more inclusive and clear view of the future of e-government by incorporating indicators such as ICT diffusion in the analysis.

In this chapter, by considering the following assumptions and understandings, we attempted to narrow down our investigation to the factors that may have[a] more direct role in development and e-government projects.

4.2 Preliminary study, basic Assumptions

Institutions in the developed states have not emerged at one specific time nor are reproduced through a particular sequencing (North, 1990). So, nations even in developed states are not in the similar position in terms of institutional positions, and some institutions such as governance institutions are more relevant to development and e-government than judiciary institutions (Evans. 2005). Hence, identifying the priorities for societies will be critical and a matter of concern in terms of institutional building or rearrangement.

Institutions as rules of games in the arena of social play include, formal –rules and regulations which to some extent are tangible or governable — or informal such as culture, ideas, beliefs and norms - which their effects in general are not objective and stay out of human mind. In contrast, social organisations as major players in this ground are more testable, in particular, when they are examined by their outputs presented in

their annual accounts and reports or their share in social outcomes, for instance, their role in economic growth and macroeconomic indices. Hence, examination of the relationship between national indices may lead to a list of organisations interlinked with prior institutions in this regard. Here, it is worth remembering that annual reports and statistical figures they offer do not present all the factors national outcomes in organisations' work. However linking some particular indices to some particular organisations can address certain domains that have more relevance to the issues this research is involved with.

Moreover, by a path dependent institutionalism lens, the organisations -managers and staff- or policy makers interoperating with governance of those organisations cannot ignore those indices, because mechanisms of self-reinforcing sequences, what economists call "increasing returns" (Romer, 1986; Mahoney, 2000) is important for survival of the organisation and pertinent institutions.

Considering the main question of the research and its societal perspective – developed and developing member states who have welcomed e-government- we need global data. Getting such data directly, as mentioned before, is out of the remit of this research. To compensate, we had to get the benefit from available secondary data regularly produced by international organisations such as UN and its affiliated branches of World Bank [WB], International Monetary Foundation, [IMF] and UNESCO. As a complementary source, the research uses another credible database of Heritage Foundation, which monitors and assesses the Economic Freedom situation and index in the world.

Considering that e-government is in nascent stage leading to lack of universally accepted definitions, or consensus on its components and features and divergence among researchers and assessing organisations (including Universities, Advisory Agents and consultancy organisations such as Brown University (2005), Accenture, regional unions such as EU, special economic markets like OECD, or the UN itself which covers all states in the world) we decided to choose the UN which has developed extensive work for assessing e-government status across the world. Under the title of e-readiness by UNPAN (2003-2009), the UN has published continuously benchmarking reports about e-government and ICT dissemination in the world from 2003. UNPAN has enriched its database with qualitative data in addition to web analyses and governmental reports using independent observers for the benchmarking practice (UNPAN, 2004). Another database which provides worldwide data about ICT diffusion

is the annual report by the International Telecommunication Union (ITU) which was also deployed in this work as a remarkable source of data.

Considering that mid 1990's is the period in which e-government emerged, the decade from 1996 to 2005 is considered as the time span for this study representing historical time of path dependency for e-government.

We cannot neglect the following events that occurred during the last few decades of 20th century:

- Transfer of Internet from military to public domain, a revolution without which the 24/7 type of service delivery was not imaginable. This revolution was accompanied with a long list of other technological advances without which again the Internet and e-government were not possible.
- The Collapse of Former Soviet Union in between 1985 and 1991, changes in the workforce structure pushing the states into worldwide competition and to realign new coalitions based on the new division of labour. For instance EU experience to frame SHINGEN Zone originated in 1985 or ASEAN which received enormous waves of China economic growth in this decade, had at least two major implications. The first was the abolishment of political boundaries and economic limitations, and the second one was a radical growth in the role of governance and public sector management. Such changes have extreme reliance on the state information infrastructure and facilities.
- Reinvention of government governance through revisiting ICT and its role in political and public administration terminologies from mid 1990's in the US (Heeks, 2001). Several researchers have claimed that NPM as a global paradigm relies on ICT progress (UNPAN, 2002), therefore without Internet and automation decentralization of responsibilities, and recentralization of control would not be possible.
- ICT expansion in 1990's has other impacts on government role and responsibilities. ICT as a competitive sector pushed governments back in terms of the doctrine of telecommunication as a natural monopoly for the state. This sector, which even in capitalist zone such as UK was on the top of the list of natural monopoly of the state, started to be privatised for competition reasons, something that was only possible by securing national data and information in the hand of government. ICT

has had another outcome in developed and developing states in terms of division of labour. The role of developing nation in global market as Halabi (2004) states has transferred from providers of raw material to providers of low skilled workers for MNCs, which under the shield of US and Western hegemony on FDI, have led to control over their decentralised investments, or favouring low cost IT workers, for instance, in India to keep active customer services in the UK or US for 24 hours and 7 days.

- Although the birth of e-government goes back to mid 1990's until the end of the decade, main activities and practices as well as theoretical frameworks in this context appeared and happened in 2000's. For instance, models by Layne and Lee (2001), EU's (2004) model for implementation as a tool for benchmarking, major works by the UNPAN (2004), or theoretical works by Heeks (2001) and Funtain (2001) all emerged in 2000 and after. In addition, most of benchmarking were carried out by the UN from early to mid 2000's.

The following table (Table 4.1) presents some general data extracted from various sources of information showing differences in a number of areas we have witnessed prior to the Internet age (1990's), and after that.

Phenomenon	No or amount	Pre1990	No or amount	1990's
Land line telephone	150k	1965	851k	1998
Mobile phone	0	1978	305k	1998
Internet users	0	1985	180k	1998
Radio	57k	1930's	2008k	
Television	75k	1956	1096	1994
International air travel	25k	1950	400k	
International air travel income	\$ 19,000,000k	1970	\$ 398,000,000k	1996
Production for export zones	0	1953	850	1999
Saving of foreign currency	\$100,000,000k	1970	\$1579,000,000k	1997
Foreign currency Daily dealings	\$100,000,000k	1979	\$1,500,000,000k	1998
Bank saving for non-resident people	\$200,000,000k	1964	\$7,900,000,000k	1995
Foreign banking loan balance	\$200,000,000k	1970	\$10,383,000,000k	1997
International stoke share	0	1962	\$371,000k	1995
Extraction contract	0	1971	70,000,000k	1998
World FDI currency	66	1960	3200,000k	1996
Global enterprises	7000	1960's	44508	1997
Global citizenship associations	1117	1956	16586	1998
Annual decline of planet and animal species	6	1950	10.000	1990

Table 4.1 summary of indicators of globalisation change, Source: Globalization: a critical introduction (Scholte, 2000 p.84)

4.2.1 Objectives of the preliminary study

Failure of Economic development theories and IGO prescriptions for developing countries through the 20th century (Adelman, 1999; North, 1990, 1993; Evans 1995) , on the one hand, and high risk of e-government implementation Heeks (2001) on the other, can put a question mark against the early claims that e-government can overcome the development gap. However considering that ICT and perhaps e-Government is recognised as one of the only remaining ways to reduce the gap of development (Stiglitz, 2000; Evans, 1995, 2005) led the researcher to conduct a study in order to 1) re-evaluate the literature findings and 2) find the key elements which relate to e-government implementation issue to achieve a reconsideration of advantages (Vs disadvantages) of this movement.

The research , to this extent , proposes some constructs and structure for pursuing some theoretical propositions. The structure is as follows:

Period of 1990's, which can be considered as the origin of e-government to become a reality in 2000's was considered as the reference time frame in this research. To accommodate this, the environmental condition in 1990's in which extent, uncertainties as well as opportunities emerged for governments at a global context to exercise e-government as a tool for governing the new environment, was taken into consideration in this preliminary study.

E-government at national level in developed countries – where they host the cradle of the high technology of ICT– can be counted as an endogenous (Cortright, 2001) factor and path dependent but at organisational level it is marked as a rational choice which should be enacted through an institutional process or “institutional enactment” (Fountain, 2001) as a learning process from innovations put forward by the private sector (Tailor et. al., 1996) and as a process of try and error and participation (Heeks, 2005) to become used to the technology. For this reason we chose 2000's as the period of penetration of e-government in the world.

Variables: the variables used in the study included;

- Independent variables: which were basically State development characteristics during 1990's [Mediums of Economic, political and human development of the states during 1990's].
- Dependent variables which were e-government position in 2000's [rank and position of the countries in UNPAN reports e-readiness]

Hypotheses: the study therefore came across the proposition that e-government success in countries should be tested against the changes in the states' institutional characteristics as well their governance capabilities. Therefore the following two general hypotheses were proposed:

1. E-government implement-ability (and success) has significant correlation with institutional characteristics of the countries;
2. E-government implement-ability (and success) has significant correlation with governance capability of the countries for institutional building.

Implications of these hypotheses could be discussed as follows:

- If Hypothesis 1 is true then the chance to have (full potential) e-government in developing states in the short term could not be sufficient. This means that, due to information gap and costs of e-government projects, in the absence of proper institutions, developing countries will meet waste of their limited economic resources and some unwanted social or political results.
- If Hypothesis 2 is true then the two following possibilities may be expected:
 - These features have rooted into the first group of characteristics (institutional), leading to the same result as mentioned in the above for Hypothesis 1. In this way, the governance features will be mediator variables.
 - These features have no relationship with the first group of characteristics, so we can optimistically expect e-government's full potential, solely by enacting the rules and assigning a special organisation for monitoring and overseeing the process and following the rules and regulations, controlling the digital gap and preparing them to leap frog to development.

4.2.2 Methodology

The main approach for examining the ideas discussed above was using Secondary data available from the UN reports and database as well as other reliable international organisations' data bases. The strategy of data collection was therefore set on this basis and data from those data bases were extracted and entered into SPSS data sheets.

The applied test was primarily a simple correlation test between Medium of relevant data attributed to different countries and their e-readiness ranks listed in e-readiness reports (UNPAN, 2004). Since we were looking for the key factors contributing to the issues discussed, we had to raise the standards in terms of acceptance level of significance. The basic criterion, therefore, was set to be over the usual acceptance level of 0.6.

4.2.3 The steps of the study and results

The steps taken in the study and some conclusions drawn in evaluating the defined hypotheses are explained hereby:

1- First we identified several indicators from various areas including economics, social and political which could be used to understand the factors distinguishing countries that have implemented e-government and their relative success and stage they have achieved. 41 indicators were selected with reference to literature on development and governance representing the themes which might have direct or indirect effects on public and private sector as well as citizen's relationships (monetary or legally), ICT, economic status (macro-economic indicators such as GDP, trade, industry, tax, employment, etc) and political indicators (Human right and freedom).

4.2.4 Identifying criteria and independent variables

Finding the indicators which could be the medium for the developmental or institutional condition of the countries was a serious challenge for the researcher. On the one hand, the lack of consensus on solution for development among scholars in economic development (i.e. Adelman 1999 and Toey, 2003 ;Stiglitz, 2001) made it difficult to specify the criteria and indicators showing countries' development positions. On the other hand, the theories and views on institutionalisation and ideas to return it to the mainstream of economic development (Evans, 1995, 2005) were in their nascent stage and no widely accepted agreement existed on the criteria and indicator for demonstrating nations' institutional condition. Some changes in ideas such as the economic main stream from capital accumulation resulted in reduction in the weight of macroeconomic index which have been referred to by economics scholars. Also, the growing importance of social capital, trust and social beliefs for which we do not have precise indicators compelled the researcher to distinguish the data which were directly related to governance and government activities. For instance, separating legislating or executing, controlling, disciplinary rules or resource allocation—in terms of policy – from activities that in general cover other key players of country in developing sphere, for instance, Market or individual and social demand and expectations.

But, the institutional data and indices in developing countries—target groups of this research—either were incomplete and inaccurate or were not recorded officially. In addition, supposing existence and accuracy and possible access to these data for a decade was not an easy task at all. To resolve these issues, five strategies were chosen to select the factors: 1) having some relevance with a collection of theories; 2)making reference to the evolutions of countries through 1990's onwards; 3)attributing to

industrialisation and Information society; 4) relevant with quality of the society; and finally 5) accessibility or existence for the period concerned by the research.

A summary of the work on the selection of indicators is discussed in the following:

GDP—emphasized in classical economic theories as a major source for assessment of national economy –for instance, used alongside with GDPppp which is closer to new institutionalist approach which focuses on equity and distribution. In addition, it can be found relevant with importance of quality of educational system for change of social attitude (Stiglitz, 2000) or forming and framing the institutions and quality of living (Grief, 2006) deployed. In this line, fiscal system was considered for two dimensions: either as a main criteria that according to Karl (1998) differentiates developed countries from developing as the mechanism for providing sustainable resource that should be controlled and supervised through a democratic system in developed states; or as an imperfect procedure which in developing states may lead to a rent based or corrupt government. So, here, the data which demonstrate fiscal characteristics of states were employed. In addition, we used a lens of social institutionalisation theorists, such as Grief (2006), which classifies developed countries based on their non-technological capital—social networks, rule of law and anti-corruption features. We also looked at the North's idea (2009) on links between economic development with political development and generalised access to economic and political resource as a twofold pattern for development. Those encourage the researcher to deploy some indexes such as “Transparency International” on corruption, Political rights; Civil liberty; Economy freedom Index; Regulation of credits, labour and business; Access to sound money; Legal structure and security of property rights; and some index about size of government and private sector. On the other side, the growing share of the service sector and ICT in its heart and general role that governments play in this regard were the reason for using some indices, for instance, Service imports and Service exports. Another group of indexes which were employed included those which represent the global events in particular in terms of international trade, import and export of service, affected occupation and training of work force , such as unemployment of youth; Secondary education etc.

These indicators are displayed in Table 4.2, explaining the reason behind their selection, theoretical background to the index or variable and also the area which they are anticipated to have impact on. Areas considered are Policing (P) or governance—

including policy making and policy executing; Market (M) or other economic activists out of government, and Institutions (I) the domain that social habit and behaviour are flowing or relation between P and M.

N	Index	Reasons relationship to eGov	Theoretical aspects	Area
1.	GDP	Resources for government B and C and G	Old growth theory (Capital agglomeration)	PM
2.	GDP per capita	Resources for citizens B and C and G	New institutional approach (Fair distribution (Kufman, 2000))	PMI
3.	Government expenditure	Resources for government G2G	Keynesian approach (state-led , statists)	P
4.	Industry value added	potential for completion B2B and G	Social qualification equal with development (Grief.2006), development equal with industrialization	P IM
5.	Annual deflation/ Inflation	Resources for government G and C	Powerful government (Migdal); economic sustanalbity	P
6.	ICT. Expenditure per. Cap	costs distribution C and G2B	Motivator of development in 20 th century (Evans.1995), stiglit (1999)	P
7.	ICT. Expenditure	cost CandG2B	Motivator of development in 20 th century (Evans.1995) stiglit (1999)	P
8.	Interne telephone traffic	cost .ICT market	Motivator of development in 20 th century (Evans.1995) stiglit (1999)	P
9.	Labour force Education	Preparation G and C and B	Quality of education system(Stiglitz)	P
10	Life Expenditure	social standards	Quality of society: (Grief.2006)	I
11	Foreign Direct net investments	available resources for government G and /2B	Globalization and Role of trade in development: Evans (1995)	P I
12	Financing from abroad (current LCU)	available resources for government G and /2B	Globalization and Role of trade in development: Evans (1995)	PI
13	Unemployme nt	Government issue G2B2C	Quality of education: stiglit (1999)	PI
14	Youth Unemployme nt	Government issue G2C	Quality of education:stiglit (1999)	P
15	trade goods	Government income and outcome G2B/B	Globalization and Role of trade in development:(Evans.1995)stig lit (1999)	PI
16	trade total	Government income and outcome G2B/B	Globalization and Role of trade in development:(Evans.1995)stig lit (1999)	PI

17	Taxes on international trade (% of current revenue)	Government income G2B/B	Role of fiscal system on development: Karl (2004)	P
18	Taxes on income, profits and capital gains (% of total taxes)	Government income G2B/B	Role of fiscal system on development: Karl (2004)	PM
19	Tax goods services	<i>Government income G2B B</i>	Globalization and Role of trade in development: (Evans.1995) stiglitz (1999),Karl (2004)	PM
20	Taxes on income, profits and capital gains (% of current revenue)	Government income G2B/B	Karl (2004)	PM
21	Tax revenue (current LCU)	Government income G2B/B/C	Globalization and Role of trade in development: Karl (2004)	PM
22	Tax revenue of GDP	Government income G2B/B/C	Utilitarian and new-institutionalism approach: Karl (2004)	P
23	Private capital flows, net total (DRS, current US\$)	B2B and C2B	Quality of society(Greif,2006) and role of education in development stiglitz (2000)	M
24	Public education	human capital C and B	Role of knowledge production in development stiglitz (2000)	P
25	Research and development expenditure (% of GDP)	human capital and cost C,B and G	Quality of knowldege production: stiglitz (1999)	P
26	Scientific and technical journal articles	human capital and cost B2B	Quality of society(Greif,2006) and role of education in development stiglitz (2000)	PM
27	Secondary education, pupils	human capital C2B/G	Globalization and Role of trade in development: Evans (1995) and i-society	P
28	Service exports (Bop, current US\$)	Competition G2B/B	Globalization and Role of trade in development: Evans (1995) i-society	P
29	Service imports (Bop, current US\$)	competition G2B/B	General feature of under developing states (Evans, 1995)	P
30	Transparency International commissione d (corruption)	G2G,B and C	Useful government for economy but in minimal size (North 1981)	PI

31	size of government	G2G,B and C	Social capital (Greif , 2006)	P
32	Legal structure & security of property rights	G2G,B and C	New utilitarian approach and North (2005)	I
33	Access to sound money	G2C	New utilitarian approach: North (2005)	I
34	Freedom to exchange with foreigners	B2B and C2B	Economic freedom: New classic approach	PM
35	Regulation of credit ,labour & business	G2B	New utilitarian approach to development	P
36	Economy freedom Index	G2B and C	Economic freedom: New classic approach	PM
37	Development class	G2B and C,B2B,B2C	North (2005)	PM
38	Political right	G2C	North (2005)	PI
39	Civil liberty	G2C	Sen (1999)	PI

Table 4.2 Variables and indices extracted for examination

2- Then by referring to the archives of World Bank, human development index of the UN, Economic Freedom annual report (2005), UNDP Reports and freedom sites also UNPAN were reviewed to extract information with regard to the selected indicators in step one. The average of ten years data on 191 member of nation state were extracted and transferred to SPSS tables for data analysis.

A reference indicator (Independent variable) which can act as a predictor and representative indicator for readiness of governments was also sought for data of which extracted from UN E-readiness model (UNPAN 2004, 2005). Tables (4. 3)presents the first set of result from applying the correlations test between these factors. In this table, the Pearson correlation is tested between three stages (3, 4, and 5) of e-government as reported in the UN database and the general ranks of e-government in states for years 2004 and 2005.

Ranks & e-Govt stages		Rnk2005	stg5.2005	RnK 2004	stg4.2004	stg3.2004
Rnk2005	Pearson Correlation	1	.884(**)	.912(**)	.769(**)	.923(**)
	Sig. (2-tailed)		.000	.000	.000	.000
	N	168	168	168	168	168
Stg 5.2005	Pearson Correlation	.884(**)	1	.759(**)	.815(**)	.802(**)
	Sig. (2-tailed)	.000		.000	.000	.000
	N	168	168	168	168	168
RnK 2004	Pearson Correlation	.912(**)	.759(**)	1	.622(**)	.934(**)
	Sig. (2-tailed)	.000	.000		.000	.000
	N	168	168	175	175	175
Stg 4.2004	Pearson Correlation	.769(**)	.815(**)	.622(**)	1	.755(**)
	Sig. (2-tailed)	.000	.000	.000		.000
	N	168	168	175	175	175
Stg 3.2004	Pearson Correlation	.923(**)	.802(**)	.934(**)	.755(**)	1
	Sig. (2-tailed)	.000	.000	.000	.000	

* Significant correlation; ** highly significant correlation

Table 4.3 correlations among stages and total ranks

As the result the UN model- total ranks for 2005 – because of more information and data, selected as the reference indicator. The correlation analysis, also shows a strong relationship, between countries ranked in 3rd stage in 2004 and total ranks in 2005 as summarised in Table 4.4.

Ranke (2005)&stages		Rnk 005	stg3.2004
Rnk 2005	Pearson Correlation	1	.923(**)
	Sig. (2-tailed)		.000
	N	168	168

* Significant correlation; ** highly significant correlation

Table 4.4 Correlations between ranks of countries in the 3rd stage in 2004 and their total ranks—final scores of countries in 2005

Also by comparing the 4th stage in both years (2004 & 5), it can be seen, as shown in figures 1 and 2 that the countries which could pass the 3rd stage and have entered the 4th,

form only less than 5% of the total number of world states. Thus, the 3rd stage can be considered as the bottleneck of the process for achieving full potential e-government. In other words, stage 3 (re-engineering the processes or efficient government) can be referred to as the main barrier in the implementation of e- government.

On the other hand, by comparing the 4th stage in both years; Tables 4.3 and 4.4, it can be concluded that the countries which have passed the 3rd stage and have entered the 4th are not considerable and therefore it is very likely that the 3rd stage can be considered as a bottleneck or a barrier for implementation of e- government.

Status of countries within four levels of scores in stage 4		
Scores for Stage (4)	2004 (%)	2005 (%)
0-25	84.4 (*)	84.2 (**)
25-50	9.6	7.8
50-75	3.6	4.8
75-100	2.4	4.20

(*) -113 country =00, (71.9%) (**)-120 country =00, (67.7%)

Table 4.5 locations of countries within four levels of scores in stage 4

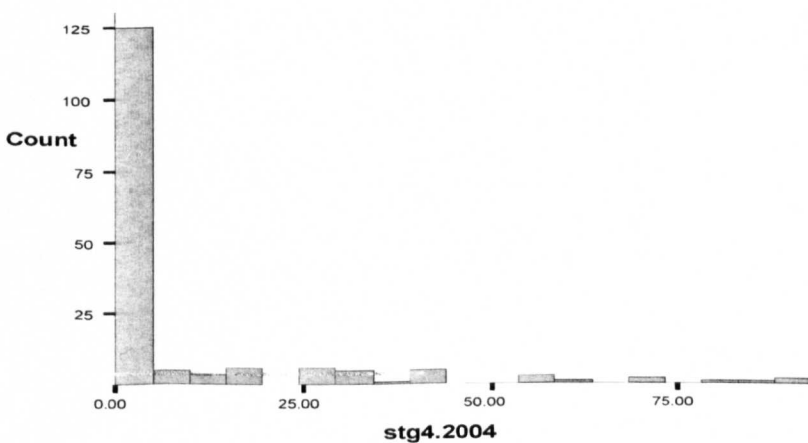


Figure 4.1 Countries scores in stage 4 (2004)

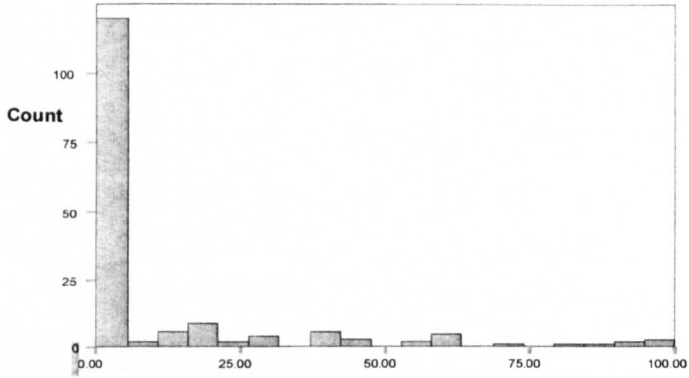


Figure 4.2 Countries scores in stage 4 (2005)

The results show that the majority of countries (73%) could not enter step four or in fact pass step three of e-government.

In the next step, by analytical test of correlation (Pearson, 2 tales) between all independent variables (indexes that demonstrate nations characteristics in 1990's from the first table) with dependent variable (indexes that represent e-government positions of nation states from UNPAN e-readiness 2005 : totstg: state scores 2005), 10 independent variables show significance correlation (Table 4.6) but two indicators—Anti-Corruption (transparency) and LgStScR (Legal structure & security of property rights) —demonstrated high correlation with the reference variable and other eight independent variables at some lower rates GDPppp, FrdExFr (Freedom to exchange with foreigners). Details are shown in Table (4.6).

e-Gov rank and state indexes		Rnk2005	GDPppp	tax.GDP	Private-capital	Anti-corruption	LgStScRp	FrdExFrn	RgCrdLBU	FrlDx	Pol.right	CiviLiberty
Rnk2005	Pearson Correlation	1	.629(**)	.446(**)	.472(**)	.745(**)	.651(**)	.618(**)	.419(**)	.645(**)	-.419(**)	-.387(**)
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	168	157	106	118	138	116	116	116	116	166	167
GDP ppp	Pearson Correlation	.629(**)	1	.437(**)	.243(**)	.869(**)	.744(**)	.518(**)	.478(**)	.658(**)	-.443(**)	-.487(**)
	Sig. (2-tailed)	.000		.000	.005	.000	.000	.000	.000	.000	.000	.000
	N	157	181	111	132	146	124	124	124	124	173	174
tax.GDP	Pearson Correlation	.446(**)	.437(**)	1	-.021	.496(**)	.524(**)	.394(**)	.296(**)	.360(**)	-.616(**)	-.623(**)
	Sig. (2-tailed)	.000	.000		.851	.000	.000	.000	.004	.000	.000	.000
	N	106	111	112	83	103	91	91	91	91	111	111
private.capit	Pearson Correlation	.472(**)	.243(**)	-.021	1	.149	.152	.171	-.115	.068	-.069	-.051
	Sig. (2-tailed)	.000	.005	.851		.120	.154	.110	.285	.528	.432	.563
	N	118	132	83	134	111	89	89	89	89	132	133
Corruption	Pearson Correlation	.745(**)	.869(**)	.496(**)	.149	1	.886(**)	.605(**)	.623(**)	.780(**)	-.581(**)	-.627(**)
	Sig. (2-tailed)	.000	.000	.000	.120		.000	.000	.000	.000	.000	.000
	N	138	146	103	111	154	118	118	118	118	152	153
LgStScRp	Pearson Correlation	.651(**)	.744(**)	.524(**)	.152	.886(**)	1	.585(**)	.614(**)	.796(**)	-.565(**)	-.584(**)
	Sig. (2-tailed)	.000	.000	.000	.154	.000		.000	.000	.000	.000	.000
	N	116	124	91	89	118	126	126	126	126	124	125
FrdExFrn	Pearson Correlation	.618(**)	.518(**)	.394(**)	.171	.605(**)	.585(**)	1	.481(**)	.787(**)	-.527(**)	-.534(**)
	Sig. (2-tailed)	.000	.000	.000	.110	.000	.000		.000	.000	.000	.000
	N	116	124	91	89	118	126	126	126	126	124	125
RgCrdLBU	Pearson Correlation	.419(**)	.478(**)	.296(**)	-.115	.623(**)	.614(**)	.481(**)	1	.695(**)	-.423(**)	-.456(**)
	Sig. (2-tailed)	.000	.000	.004	.285	.000	.000	.000		.000	.000	.000
	N	116	124	91	89	118	126	126	126	126	124	125
FrlDx	Pearson Correlation	.645(**)	.658(**)	.360(**)	.068	.780(**)	.796(**)	.787(**)	.695(**)	1	-.627(**)	-.628(**)
	Sig. (2-tailed)	.000	.000	.000	.528	.000	.000	.000	.000		.000	.000
	N	116	124	91	89	118	126	126	126	126	124	125
Pol.right	Pearson Correlation	-.419(**)	-.443(**)	-.616(**)	-.069	-.581(**)	-.565(**)	-.527(**)	-.423(**)	-.627(**)	1	.944(**)
	Sig. (2-tailed)	.000	.000	.000	.432	.000	.000	.000	.000	.000		.000
	N	166	173	111	132	152	124	124	124	124	188	188
CiviLiberty	Pearson Correlation	-.387(**)	-.487(**)	-.623(**)	-.051	-.627(**)	-.584(**)	-.534(**)	-.456(**)	-.628(**)	.944(**)	1
	Sig. (2-tailed)	.000	.000	.000	.563	.000	.000	.000	.000	.000		.000
	N	167	174	111	133	153	125	125	125	125	188	189

Table 4 .6 Correlations analysis of all countries for the selected indicators

* significant correlation; ** highly significant correlation

4.2.5 *Some Results*

Statistical test of correlation (Pearson, 2 tales) was carried out between all dependent variables and the independent variable (rank of all countries). The results indicate that:

With reference to Grief's (2006) suggestion who mainly address "economic development "to anti-Corruption space and Property Rights in the society, e-government implement-ability in developed countries— because of those indexes –will be more possible. This is evident in the significant correlation existing between Anti-Corruption and e-Government at a level of 0.745, and LgStScR (Legal structure & security of property rights) at 0.651. This will confirm the idea that these two basic institutional factors could be considered as the main precondition or prerequisite for e-government.

We have reflected on other theoretical perspectives, for instance, the one by Karl's (1998) on Fiscal System and North's et.al (2009) idea about linkage between economic development and political development. For the first variable, the resulting correlation is at an insignificant level of 0.446. A negative but low correlation exists between dependent variable of e-government and independent one of Political Rights (Pol.right) at -0.419 level and with Civil Liberty at -0.387 level. We can conclude from this data that the political aspects of development have less influence on e-government.

Apart from two of the eight variables, which are "Freedom to exchange with foreigners" and "Tax Revenue share of GDP", located in the domain of policy issues, all other correlated variables can be categorised as institutional matters.

Additional findings of this correlation analysis drew our attention to the existence of two critical linkages. On one side, e-government has highly significant correlation with the level of corruption and economic freedom in countries, and on the other, these two independent variables have demonstrated the highest level of correlations among the interrelationships in compare with other correlated variables . Hence we may assume that 1) Governance in here can be accounted as synonymous with Anti-Corruption and 2) Economic Freedom (Frldx) is a moderator variable.

These factors and correlations are summarised in Table (4.7).

Rnk/State	Rnk2005	GDPpp	tax.GDP	private.capit	corruption	LgStScRp	FrdExFrn	RgCrdL Bu	FrIdx	Pol.rig ht	CiviLiberty
Rnk 2005	1	.629 (**)	.446 (**)	.472 (**)	.745 (**)	.651 (**)	.618 (**)	.419 (**)	.645(*)	-.419 (**)	-.387 (**)
Corruption	.745 (**)	.869 (**)	.496 (**)	.149	1	.886 (**)	.605 (**)	.623 (**)	.780(*)	-.581 (**)	-.627 (**)
FrIdx	.645 (**)	.658 (**)	.360 (**)	.068	.780 (**)	.796 (**)	.787 (**)	.695 (**)	1	-.627 (**)	-.628 (**)

Significant correlation; ** highly significant correlation

Table 4.7 Correlation between eight indicators correlated with e-government readiness and state's positions in terms of economic and governance status

4.3 The complimentary study

The results in the last step could theoretically and practically support our findings from the literature, and consequently confirm our first hypothesis. However, due to the following reasons, the study, found the need to a second round of data analysis;

Firstly, correlation cannot demonstrate cause-effect relation;

Secondly, the above tests give us nothing about the second hypothesis of the research which could not be ignored or put aside even proving the first hypothesis.

To benefit from the findings of the first round and the importance of the two indicators of Economic Freedom and Corruption which showed high correlation with e-government, it was decided to examine those two indicators in terms of their content, attributed theories and implications.

World Bank which offers governance indicator for monitoring measure of progress in anti-corruption in the world and Heritage Foundation which provide a data set for monitoring Economic Freedom and benchmarking countries in this regard were the references for this part of the study. On the other side, although e-readiness indicator consists of ICT penetration in the world, however it did not properly represent ICT infrastructure in countries, as a factor that could not be neglected in e-government implementation. To cover this aspect, the researcher provides a classification of countries' status through four axes: 1) Governance; 2) Economic Freedom; 3)ICT diffusion and 4)e-government. To accommodate the classification, a definition of the four classes of ranks at High, Upper Medium, Lower Medium, and Low were used. The summary of these are demonstrated in Table (4.8).

Whereas institutional state changes often occur in long time periods (at least 10 years) and e-government emergence is stated by many researcher to be mid 1990's, institutional state or situation at the starting point of e-govt emergence (1995) was selected as the independent variable, and then ICT diffusion and state's position at year 2000 (in terms of the average of 10 years) as intermediary variable, and current or most recent available e-govt rank (e-readiness) as dependent variable. In the following, an interpretation or restatement of the research is [the]second main question to be used in the data analysis.

Question: Is there a significant relationship between state's relative status (or their rank of Governance (GVC)/Economic Freedom (EF) in 1995 with their ranks in ICT diffusion in 2002 and e-government (e-govt) in 2005?

The Hypothesis will be: institutional structure (high/upper medium GVC/EF) development is a precondition for e-government's full potential (e-readiness high rank)

Classification	Components	Position (scores)	Rank	Sources
Governance	<ul style="list-style-type: none"> • Voice & Accountability (VA) • Political Stability (PS) • Government Effectiveness (GE) • Regulatory Quality (RQ) • Rule of Law (RL) • Control of Corruption (CC) 	High (7+)	IIII	Worldwide Governance Indicators (WGI) 2005
		Upper Medium(6-6.9)	III	
		Lower Medium (5.1-6)	II	
		Low (5,-)	I	
Economic Freedom	<ul style="list-style-type: none"> • Size of Government(SoG) • Legal Structure and Security of Property Rights(LS&SPR) • Access to Sound Money (ASM) • Freedom to Trade • Regulation of Credit, Labour, and Business(RCLB) 	High (2.5,-)	IIII	WEF (2005) James Gwartney and Robert Lawson with William Easterly
		Upper Medium (2.51-3)	III	
		Lower Medium (3.1-3.5)	II	
		Low(3.51,+)	I	
ICT Investment OR State Priority	<ul style="list-style-type: none"> • Connectivity (physical capacity; infrastructure) • Access • Policy environment • Diffusion 	High (0.70+)	IIII	International Telecommunication union ITU (2004)
		Upper Medium (0.50-0.69)	III	
		Lower Medium (0.30-0.49)	II	
		Low (29-)	I	
Readiness e- government	Web measure model	High (70+)	IIII	e-readiness un (2005)
		Upper Medium (60-69)	III	
	Infrastructure	Lower Medium (30-59)	II	
	Human Capital	Low(29-)	I	

Table 4.8 Indicators and scores attributed for classification and comparing change of state status

4.3.1 Results

Testing (comparing categories) 138 (66%) states out of 209 – relying on available information - shows that 127 (96%) of countries had had the same position in EF (1995) and GVC (1995) and achieved almost the same position in e-government (2005). This means 93 countries (67%) which their scores, both in economic freedom (EF-1995) and governance (GVC-1995), were low (L) or Low medium (LM) similarly have their positions in e-readiness (2005) at L or likely LM level. Also, 34 countries (24 %) with High (H) or Upper medium (UM) rank have a comparable status. This means they similarly are located at H and UM level in EF and GVC as well as e-government score (2005). While %9 of 138 countries, that is, only 11 countries, break this rule and while having L or LM score in EF and GVC locate in H or UM levels in e-government. The results are shown in the Table (4.9).

Countries	Examined	Confirmed	L.LM/L.LM	H.UM/H.UM	L.LM/ H.UM
209	138	127	93	34	11
100%	66%	92%	67%	24%	9%

Table 4.9 overall results about countries institutional class change through the time

Among the above 11 countries, four of them including Brazil, China, and India, are known as advanced emerging states, Colombia and Czech Republic are characterized as secondary emerging market, and Croatia , Estonia, Slovak Republic Romania and Slovenia as frontier markets which could modernise their economies successfully by using less economic infrastructure. So, although they could not achieve development criteria, they could be characterised as in transition economies. Hence, market improvement or institutional building has happened in these countries long this decade, which as a result supports our hypothesis.

Seven countries of this list are also the new members of EU which were under sovereign of former Soviet Union (Now Russia) and now are under a supra state system (EU) that drives them through investment, support as well as standardisation. Interestingly, none of these states have a good grade in diffusion of ICT.

N	Country	Governance 1995	Econ. Freedom 1995	ICT Diffusion 2000	E-readiness 2005
1	Brazil	I	I	II	III
2	Colombia	II		I	III
3	China	I	II	I	III
4	Croatia	I	I	II	III
5	Czech .Rep	II		II	III
6	Estonia	II	I	II	III
7	India	II	I	I	III
8	Latvia	I		II	III
9	Romania	I	I		III
10	Slovak R	I		II	III
11	Slovenia	I		II	III

Table 4.10 Countries at high and upper medium rank of e-govt with low or Low- medium ranks in other institutional factors

The next table shows all unexpected situation in countries with high or upper medium rank in e-government that have high or upper medium position in one or both institutional indicators while only 4 of them have upper medium rank in ICT.

N	Country	Governance 1995	Econ. Freed 1995	ICT Diff. 2000	e-readiness 2005
1	Chile	IIII	I	II	IIII
2	Cyprus	III	IIII	II	III
3	Ireland	IIII	III	III	III
4	Israel	III	III	III	III
5	Korea, North	III	IIII	III	IIII
6	Malta	III		II	IIII
7	Mauritius	IIII	II	I	III
8	Mexico	III	I	I	IIII
9	Philippines	IIII	I	I	IIII
10	Singapore	IIII	III	III	IIII
11	South Africa	II	IIII	I	III
12	Thailand	IIII		I	III
13	United Arabic Emirates	IIII	II	II	III

Table 4.11 Developing or in transition countries with medium and upper and high rank in governance and freedom economy but low rank in ICT

According to the above table, we can get this result that, governance structure show more consistency with e-government to other factors.

The countries listed in Table 4.12 are in the list of developing or in transition countries with medium and upper (medium) and high ranks in governance which can have a good chance to progress and increase their e-government ranks to upper medium or high ranks.

No	Country	Governance 1995	Econ. Freedom. 1995	ICT Diffusion 2000	e-readiness 2005
1	Botswana	III		I	II
2	Costa Rica	III		II	I
3	Dominica	III	I	I	I
4	Egypt, A	III	III	I	II
5	El Salva	III		I	II
6	Greece	III		II	II
7	Guatamal	III	II	I	II
8	Honduras	III	III	I	I
9	Indonesi	III		I	I
10	Jamaica	III	IIII	I	II
11	Jordan	III	II	I	II
12	Kuwait	III		I	I
13	Namibia	III		I	I
14	Oman	IIII	II	I	I
15	Panama	IIII		I	II
16	Papua Ne	III	III		I
17	Paraguay	III	I	I	I
18	Peru	III	II	I	IIII
19	Sri Lank	III		I	II
20	Trinidad	III	III	I	II
21	Cameroon	II	IIII	I	I
22	Chad	I	III	I	I
23	Georgia		IIII	I	I
24	Malawi	I	III	I	I
25	Palau		III		I
26	Poland	I	III	I	II
27	Sierra L	I	IIII	I	I
28	Swazilan		III	I	I
29	Tanzania	I	III	I	II
30	Ukraine	I	IIII	I	II

Table 4.12 Developing or in transition countries with medium and upper and high rank in governance

Looking at the trend of states' governance between 1995 and 2004, we can expect that 13 of developing states with some significant changes in governance have the chance to improve their e-government ranks. The changes are recorded in Table 4.13

N	Countries Governance	1985	1995	2004	Econ. Freedom. 1995	ICT Diffusion 2000	e-readiness 2005
1	Bahamas	5.8	6.3	6.8		III	III
2	Bahrain	6.5	6.9	7.0	III	IIII	IIII
3	Belize	4.8	6.3	6.7	I	III	III
4	Bolivia	3.5	6.4	6.5	I	III	III
5	Bulgaria	4.7	4.5	6.3	I	I	III
6	Guatemala	4.7	6.7	6.6	I	III	III
7	Kenya	5.0	5.7	6.4	I	II	III
8	Lithuania		4.7	7.0		I	IIII
9	Mauritius	5.9	7.3	7.0	II	IIII	IIII
10	Mexico	4.3	6.2	6.6	I	II	III
11	Trinidad & Tob.	4.4	6.7	6.7	I	III	III
12	Uruguay	5.4	5.8	7.0	I	II	IIII
13	Zambia	3.4	4.4	6.7	I	I	III

Table 4.13 Relationship between governance change and e-government ranks

Table 4.14 shows another 24 countries of developing status which have made significant progress in Economic Freedom area. The message, here, is that these countries can be added to the countries having the prerequisite of e-govt, and a higher possibility of successful full potential implementation.

N	Countries Economic Freedom	Score(2000)	Score(2005)	e-readiness(2005)
1	Armenia	1.95	1.84	IIII
2	Azerbaijan	2.23	2.25	III
3	Bahamas	1.93	2.15	III
4	Belarus	2.19	2.13	IIII
5	Bhutan	3.16	2.56	III
6	Bosnia-Hezegovina	2.93	2.49	IIII
7	Brunei	3.40	2.74	IIII
8	Cambodia	3.19	2.89	III
9	Cape Verda	3.61	2.84	III
10	Kazakhstan	3.95	2.79	III
11	Kyrgyz Rep	2.50	2.81	III
12	Lebanon	2.69	2.31	IIII
13	Madagascar	3.39	3.00	III
14	Maldives		2.91	III

15	Marshall Islands		2.28	IIII
16	Micronesia		2.84	IIII
17	Morocco	3.05	2.75	IIII
18	Nicaragua	3.65	1.75	IIII
19	Niger	4.09	2.90	IIII
20	Papua new guinea	3.45	2.74	IIII
21	Serilanka	2.91	2.34	IIII
22	Syria	4.05	1.85	IIII
23	Tunisia	2.68	2.54	IIII
24	Uzbekistan	4.51	2.60	III

Table 4.14 Countries with positive score in Economic Freedom and high chance of e-government full potential

4.3.2 Discussion and Conclusion

This preliminary study, in fact was a response to the paradoxical messages received as the result of the review of e-government and development literature. In one side there was an overly optimistic view picturing an easily available solution to the issue with high hopes for reduction of gap between developed and developing states. In contrast were the increasing and increasingly negative views and records of failure in both e-government and development. The researcher taking and accepting the risk and limitations of using secondary data used a simple test method of correlation as well as classification in order to open a window for the next step of the research. The main reason for this was mixed messages and unclear image that could be obtained from the extant literature and its surrounding theories which could not give the research the required strength for developing the conceptual model and derive theories from it. The study has however had some shortcomings mainly associated with availability of data. This could be a subject for future research in which the choice of indexes could be done through a more systematic and accurate method. Also additional techniques beyond correlation or simple classification could be used to find relationship between the indexes and e-government improvement. Moreover e-readiness index used in this study is not the only credible benchmarking for representing states' e-government status. Acknowledging these shortcomings the study has provided a clearer picture of the problem. For instance we can understand that institutions are the matter, and better governance has strong relationship with capability of the state to implement e-government. Nonetheless successful globalised economy or effective contribution in global market can be another alternative. Furthermore, despite the fact that institutional building may take time (decades

rather than years) observing a list of countries which seem to be able to align and drive both e-government and market institutions, and a longer list of countries which if continue their current trend may join the previous group, can portray a positive view of global e-government and the reduction of information gap at least in about half of the nation states.

We also can conclude that development is a precondition of the e-government, and that e-government and development projects can run in parallel.

In addition to institutions, ICT infrastructure and redesign of government organisation (government reinvention or re-engineering) still remain as critical barriers. However, with progresses in technology and reduced cost for developing infrastructure, likely this problem can be transferred to the domain of policy related issues and limitations which may be addressed and rectified through decisions of policy makers. Of course, it is necessary to consider that changes in governance organisations may be required for this that can still be considered a policy issue but can go beyond help by this sector.

Moreover, there is a significant correlation between environmental circumstances surrounding the Governance institutions and market in terms of "Economic Freedom", in countries from mid 1990s, with states' e-government status in mid 2000s.

Finally some comments on these issues are summarised as follows:

1. The bottle-neck of process and operational efficiency and the need for organisational re-engineering is an important factor for the success of e-government, so each e-government which neglect this issue should suffer the highest risk.
2. Considering the improving situation of institutions related to Governance in around 25 countries studied, it can be anticipated that implementing e-Government will contribute to development in these states.

As a general result, it can be said that Governance, as a combined measure and indicator defined as the basis of government efficiency, public sector health, fair access to resources for all, and ownership rights, is a key or even the key factor at social level and means for reconstruction of organisations for governing the affairs to contribute to e-government successful implementation and achieving development. However market reform can be an alternative, although achieving full potential e-government or e-governance in this scenario is not ensured.

CHAPTER FIVE

A Conceptual Model for implementation of e-Government in developing states; A phased model for introducing modern organisational technology, “e-Government”, to a traditional context, “developing countries”

5.1 Introduction

As both development programs (Evans, 1985, 2005; Grief, 2006; Stiglitz, 2000, 2001, 2002) and e-government implementation (Fountain 2001,2005; Heeks, 2001,2006) are accounted as processes of institutionalisation, institutional building or realignment, in practice, we are confronted with an institutional change and challenge, for which we need theories and tools that provide the light and directions in the institutions both at national development, and organisational (government agencies) levels. Here, new institutionalism lens will be deployed to conceptualise the scenarios proposed for e-government implementation into an under-developed context. In particular, the conceptual model will be shaped through a fine combination of two streams of New Institutionalism, i.e., Historian Institutionalism or “Path Dependency” and “Rational Choice” theories, also e-Government theories (an interpretation of Western based approaches to e-Government within a developing context).

First we, review briefly our learning from previous chapters where literature review was conducted to conclude that e-government does not stand a great chance in developing states while confirming that it is one of the last solutions and ways to reduce the development gap between developed and developing countries. This is followed by re-iterating results from the factual study conducted using secondary data to find out the factors which may have bearings on the success or failure of e-government in different countries.

5.2 E-government success in developing states; learning from a literature point of view

Through the literature review of e-government and development disciplines, an inspection was carried out to see whether bridging the development gap, or in other words, achieving good governance through e-government in developing states is possible or not.

We reviewed different definitions and conceptions of e-government, from e-service to e-enabler, looked at the risks and success factors of e-government implementation, and the institutions that may be affected or have effects on this implementation. The environmental or exogenous elements, specifically globalisation as the agent of change and uncertainty, as well as Public Administration (PA), as the direct agent or the endogenous element that engages with e-government were reviewed. In parallel, the developing sphere as the object of the research was discussed and main social and institutional differences that would impact on policy makers' decision to pursue full potential e-government or otherwise discard it, was critically examined. Finally, the study examined governance as the coherent concept from political science discipline, encompassing both policy making and policy executing sectors where e-government should be implemented in and by. The common destination of e-government which should be a point of integration of development, globalisation, public administration, market and social networks were identified and discussed as well. Our conclusions from this study can be summarised in the following:

As e-government addresses to a plenty of changes in the relationships inside and between government organisations (G2G) between those organisations and other social institutions such as market players (G2B) also between citizens individually or through the different networks (G2C), we are faced with a multidimensional changes. These changing waves may initiates with shifting from a paper based procedures to an electronic forms and formats transactions, from an hierarchical and centralised structure to a more flat and decentralised one, changes from time consuming and long queues to one quick and in time responses (twenty four hours/seven days), from complex and specialist-run mechanisms to many routine and operator-run methods. These typical changes in developed nations historically have set off or align with some institutional and endogenous changes include: I) NPM in public administration agencies, II) Government reinvention toward Good-Governance and, III) Contribution and reproduction of globalisation trends in particular after changes in world labour divide. These elements from mid 1990's converged with IT and ICT penetration in business and all corners of modern society and provided a type of rationality for policy makers to embrace e-government as a natural way to lead government, market and public's demands.

In contrast, in developing states, NPM has been experienced as an exogenous organisational technology linked with external paradigms such as economic liberalization- a type of governance offered by International Governance Organisations IGO through 1990's

(UNPAN, 2001). So, the rationality for government policy makers in developing states was fundamentally different. They should welcome to e-government because of environment complexity and uncertainty coming with waves of globalisation, progressive acceleration of technology and resulting information gaps beside the inefficient markets, corrupt and distrusted bureaucracy, which together did not leave such countries any other alternative choices. It was in a sense an optimistic perspective taken, but definitely questionable in terms of linkage with reality. Phenomena like e-government, IT and ICT diffusion in developing states were not embedded or resulted from domestic technology or apparent social demands.

Moreover, while e-government implementation in developed countries illustrated itself through the emergence of a new equilibrium standing on the foresaid pillars, the reinforcement mechanism of this preference system, as well as the sequential steps toward achieving specific outcomes— e-Governance- could be rational adequately. For instance, “Positive Feedback” mechanism can reasonably explain how increase in government costs to provide infrastructure for e-government can be a “Rational Choice” for policy makers to traded off those expenditure by setting of the policies towards” Minimal State”, and how unemployment resulted from downsizing policies can be compensated by emergence of new services such as large or small IT or ICT providers who could be reorganised as new contractor and outsourcer of government. Here, the modern states have not need to change the contract frameworks and informal institutions. By contrast, in a developed context, they only need to modify the situation through some of their formal laws and regulations. Furthermore, with e-governance- which means expanding democratisation and social participation in decision making or facilitating more windows and doors to economic freedom- the government players could achieve more satisfaction of voters and interest groups specifically the media players and information activists.

Furthermore when we assume that the existence of mutual trust between government and public is a prerequisite for every e-government initiation (see for example: Trust and risk in e-government adoption, by F. Be´langer and L. Carter, 2008; and also other researchers including Parent et. al., 2004) or consider e-government as a tool for trust building, we in developing context face a chicken and egg puzzle which should be resolved first. Also, it is suggested that “Generalizable trust” is a major part of social capital which reduces public cost is accounted as one of the main characteristics of developed nations (Grief, 2006).

The “Generalizable trust” could account as a key difference between various societies, as pointed to by Fukuyama (1995), it is the level of trust towards strangers (beyond the family).

This is because if trust could not be extended beyond the family, the resources in terms of capital as well as qualified managers could not be employed at public scales (Hjeppe, 2003). This is while developing countries that are usually engaged with high levels of ethical and family values (Stiglits, 2000) are doubted to be able to provide this required level of trust.

Moreover, we have to remember that e-government cannot be a replacement for poor management of the government (Ctas-Baril and Thompson, 1995, cited by Heeks, 2001) and will not succeed without reengineering of the processes (ibid). We also should not forget that with a weak government as a general characteristics of developing countries, redesigning and implementing a new Information Systems (IS) into the government organisations by alignment of more than 20 orders suggested by Heeks (2005) – from legal, technological, financial and cultural issues to information matters - could not be a reasonable expectation.

Furthermore, e-government is seen by some researchers to carry particular characteristics. Homburg (2004) claims that e-government is interoperate with public sector reform so NPM and e-government are in marriage. With such properties, it is a question of how we can implement e-government in a political systems which still has not met NPM or the one which according to Weber's theory (Jane, 2004), fall in the category of traditional or charismatic systems that historically are behind law based legitimacy systems. Some advocates of e-government including (Fountain, 2001 and Jain, 2004) critically question e-government implementability in organisations which still suffer from Webberian model of bureaucracy—founded on hierarchical command and control system; division of labour, and independent from society even in developed context. Observing the works by international organisations which support globalisation (WB, 2005; UNPAN, 2003-2009) as a driver for ICT diffusion and e-government in developing space, it is important to address how we can protect the political system of developing countries from facing entropy and collapse, the possibilities that Byeon (2005) has predicted in his work in the lack of support from political community – democratisation—and adaptability. Adaptability refers to the capability of the system to handle environmental fluctuations, determining the outer entropy change of the system. This depends on such qualities of the system as proper use of knowledge and information, flexibility of the system, and timely boundary control. The level of spontaneous political support is the next critical factor affecting the inner entropy change of the system (Byeon, 2005).

Here, we should be aware that e-governance in developing domain should be a precedent to globalisation and opening the borders and boundaries to the world, which is warned by the World Bank (WB, 2004) in terms of economic aspects.

In the same line, the “positive feedback” to e-government should be guaranteed before its implementation is supported and put in action. This may alert that, ICT dissemination and globalisation can potentially generate unplanned or unwanted institutional implications for the states. For instance emergence of niche trans-national city or democratisation process even in totalitarian countries (for instance see: Mansfield and Snyder, 2002) are examples we can refer to. In other words, it is crucial to answer how and when e-government can provide grounds for the state to benefit from globalisation. In a quick summary:

- E-government is a matter of institutional change and re-institutionalisation. In developed states it has happened based on a historical trend or a rational choice. These situations are not ready by definition in developing states.
- Developing states cannot achieve e-government objectives of e-governance that equates with development goals, due to lack of prerequisites. Not only this, but they may face considerable risks of political and social entropy and deconstruction as well as loss of economic resources invested in useless systems.
- E-government (ICT applications) is however one of the only remained routes to accelerate the process of development and reduce the global gaps between developed and developing nations.
- The way to achieve this goal has however to be building or nurturing institutions.
- The findings from literature analyses were tested in a study of secondary data based inquiry to find out their validity and also identify elements and factors which specifically impact upon the success or failure of e-government.

The study led to acceptance of the hypotheses that:

1. E-government implement-ability (and success) has significant correlation with institutional characteristics of the countries;
2. E-government implement-ability (and success) has significant correlation with governance capability of the countries for institutional building.

It was discussed in that study that confirmation of these hypotheses once will have a few implications including: 1) less chance to have (full potential) e-government in developing

states in the short term. This related to the information gap, cost and complication of e-government projects and absence of proper social structures or features; 2) consequently, at least two possibilities may be expected that, one: such structures have rooted into the first group of characteristics (institutional). In this way the governance features will be mediating variables. Or, two: these features have no relationship with the first group of characteristics so we can optimistically expect e-government full potential solely by enacting the rules and assigning a special organisation for monitoring and overseeing the process and following the rules and regulations, controlling the digital gap and making leap frog to development.

Furthering these findings by focusing on two underpinning theories of economy and development “New Institutionalisation (Governance), and New Liberalism (Economic Freedom), data from two reliable sources, Heritage Foundation (2005) on economic freedom criteria (government role in and part in the economy) and WB (2005) on Governance related issue (Right of Property, Rule of Law, Anticorruption activities) which address the identified factors in stage one were used to examine the status of the states of the world. The analysis included:

120 countries ranks in both Economic Freedom and Governance are classified in four groups (Lowest, Lower Middle, upper Middle and highest) in 1995, the starting point of e-government emerging.

State’s rank of e-government according to e-readiness UN benchmarking (2005) was classified in the same categories.

The results of the study show that apart from 11 countries (from developing nations) which have benefited from a positive feedback stemming from on-time and successful investment in IT and ICT and some sort of self-reinforcing mechanism – in a utilitarian explanation mode (Mahoney, 2000)- to reproduce institutional change, the rest countries preserve the same position in institutional status during the decade.

5.3 The situation and possible solution scenarios; a conceptual proposition

The first and second parts of the study led to conclude that e-government in developing states should be pursued through building institutions and establishing a process of re-institutionalisation. But we also understood that institutionalisation is not something that can happen by planning or setting targets and programmes. It takes time – decades- and may affects from some natural and unpredictable changes and random incidents (North, 1990).

This in practice leads us to say: Developing states should not attempt taking e-government as a medium to remedy their underdevelopment problems unless they can either achieve a state of re-institutionalisation in natural ways or have certain circumstances helped and stimulated by accidental situations, or find a way to make the road to institution building or re-institutionalising practical and achievable.

The situation can be explained in a different way as well. Developing countries who attempt implementing e-government through the policy sector may be found in one of the two following states in terms of their policy makers' views and stands:

1. They are aware of implications of e-government and possible risks, but they have no other alternative choices. Decision maker should choose a solution accepted commonly in facing uncertainty that surround them (Thelen, 1999). They may also desire that executing authorities to customise or change the content or pattern of the e-government or constrain it. In this type of policy although the goal of government to get strength may become realised but it is not fit with development aim of 'social transformation' (Stiglitz, 2000) or institutional development (Greif, 2006). The result of this strategy may be concluded a powerful state and weak society. This condition may emerge in the middle of implementation, so full potential e-government and its sustainability will not stay within the government's agendas.

2. Policy makers may be aware of e-government implications and even are honest in their decision to choose e-government but due to the common characteristics of developing world's policy makers such as high flying and rushed up or overestimating their abilities to involve governmental organisations and align the institution with this reform, will put them into this trap. The likely result of this scenario will be a type of high risk of collapse and progressive illegitimacy crisis and chaos.

In such situations governments in developing states should find ways out of the dead ends and possible crises. What they can do, could be set in a number of scenarios, including those solutions that basically rely on "Rational Choice" mechanism to run institutional change through to provide a consensus among key institutional players, as follows. Thus policy makers in face with e-government implications may:

1. Halt the project and start a negotiation with stakeholders of e-government in order to achieve a consensus about institutional modifications and changes within following possibilities:

- Stop the project but no negotiations take place due to unprepared channels of communications and debates,
 - Negotiation happens but because of emerging issues and subjects of discussion around the structure and rule of the game, the horizon of the result is not clear or close to any conclusions,
 - Negotiations meet the result but with delay, leading to missing the time and further widening of the information gap.
- II. Continue the e-government project and in the same time engaging the stakeholders in forming the project objectives through negotiation and building trust. Possible results are:
- Due to Government's weak nature and lack of professional negotiators in both parties the distrust climate is not resolved and no positive results achieved,
 - Both programmes, negotiation and e-government, might be going well and each part support another project systematically. In this scenario if enough time and mutual trust are available, the chance of success will grow although access to those resources and conditions will not be a simple task.
- III. Two objects can come into the government agenda: performing immediate steps of e-government implementation in a more ready domain and providing the negotiation with stakeholders in the same time, so government can present its ability and getting self confidence as well as providing and tracking the negotiation pattern in the useful way. In this scenario, maybe the framework of e-government based on maturity model have to endure a dramatic change for example a leap frog from step 2 or mid of step 3 to step 5 and return to the last position.

5.4 In search of the way out; Enter "Organisation"

In this research we have followed this assumption that the main resource for development according to the new growth theory (Cortright, 2001) is transfer of the modern Idea and Organisational Technology into the under-developing space. Also as Evans (2005) argued return of institutionalism into the discourse of economic development, combined with the new growth theory (Romer, 1993a; Hoff and Stiglitz, 2001) and capability building approach (Sen, 1999) has led to emergence of the concept of idea and knowledge transition –as a paradigm shift- in under-developed societies. This new situation which should happen

through networks and a participatory process have become a focal and pivotal issue, and also is expected to be administered by staff and managers who have to govern and enhance stock of national information and knowledge as the engine of development. On this basis and our discussions above we suggest that successful background for shift of paradigm, for instance NPM that is complemented by e-government, should be set as a criterion to represent readiness of states for e-government implementation.

To avoid falling in the vicious cycle or getting ends instead of means, any solution to exit the dead end should tell us how it can help bad-institutionalised systems get changed. Consideration of some theoretical arguments will lead us to important questions. First, North et al (2009) argues that revolutionary policy cannot bring revolutionary outcome because only adjustment of formal institution with informal institutions could result in required outcome. Also development possibility, according to Evans (1985), is pending to institutional building and is subjects to existence of a Meritist and integrated state. The question coming out of these, relates to our focal issue; how e-government can be replaced by relational bureaucracy and political disparities while Fountain (2001) proves that governmental organisations, even in developed states such as US, through e-government projects tend to reproduce the current process and status quo.

In other words, if in the developing context, neither central government nor other it's governance agencies have adequate capability for shifting the paradigm of NPM in government organizations, we can conclude that this country is in a high risk of failure in its attempt to implement e-government. This may mean recommending them to avoid putting themselves and their resources into such risk.

However it is our proposition that if some organisations could meet the NPM standards (undertake paradigm shift) we can expect those organisations to be able to implement e-government and become a medium to introduce the idea of e-government and a practice with lower risk to the state. The rational for this proposition comes from other theories which have dealt with similar situation.

First we learn from work by Heeks (2001-2005) and acknowledge that e-government is a context dependent subject set on NPM which has its roots in the Western state circumstances began in 1907's. That change came across due to a general inefficiency and collapse of the public sector while the new right idea and new liberal ideology provided framework for minimal government in the favour of additional room for market players. Also we follow

Fountain's theory of virtual state which introduces virtual cross organisations as the exit way for institutional dead end, beyond federal and governmental agencies- in the case of US. Through this angle we should look for organisations which potentially can play the role of a cross agency. In the other words we are going to re-interpret Fountain's suggestions so that they could be adjusted to developing context. This model can give a prediction tool and direction for feasibility study in terms of e-government implementation in developing states.

5.4.1 Heeks' work

We first briefly review Heeks' views on e-government (see Heeks; 2001, 2006). According to him from a discussion about socio-technical systems it can be concluded both organisational rationality and personal politics are wrong for e-government. E-Government is a mix of hard and soft issues, so it needs a mixed management approach that encompasses both hard and soft.

A management approach that mixes and/or compromises between two extremes is suggested by Heeks called a "Hybrid approach". The socio-technical approach to management of e-government would be one example of a hybrid style. Heeks argues that rationality is a hard approach to management. It assumes that behaviour including decision making is guided by a desire to produce outcomes that best meet formally stated organisational objectives. Outcomes are produced on the basis of what is the optimal solution according to logical criteria. An understanding of rational decision-making models and management roles will help us to better understanding of this approach. Heeks further explains the "Real politics" as the soft approach to management. It assumes that behaviour in decision making is guided by desire to produce outcomes that best meet personal (often covert and informal) objectives. Outcomes are produced on the basis of compromise between conflicting personal objectives. That compromise will be based upon a mix of the objectives of major stakeholders, their bargaining skills, and the political resources (such as power and attention) that they can bring to bear.

Heeks lists the differences between developing and developed states that lead to failure of e-government in developing countries as summarised in Table (5.1).

<i>Gap /Realities</i>	<i>Developing states</i>	<i>Developed states</i>
Information	Less value of Formal , quantitative, store outside of human mind	Perceived value of computerized information systems
Technology	Poor Infrastructure	Internet connection to support interagency information flows
Process	public sector work process are contingent; more politicized and inconstant environment	Viability of automating an overt , stable set of process
Objectives/ values	Kin loyalty, holism, secrecy and risk aversion	Leading edge of IS that help PA share information
Staffing	Limited skills: system analysts, designer, implementation skill, computing literacy include western language.	Presences of skilled necessary to assess the feasibility of kiosk based service delivery
Management and structure	Organization more hierarchical and centralize	Acceptability of reform that disperse information and power
Other resources	Less money, higher cost of IT, labor is lesser	Financial benefits of efficient reform by replace of clerical staff with an automated system

Table 5.1 Summarised from: Reinvention government in information age, R. Heeks(2001)

5.4.2 Fountain theory

To address the issues and apply in developing the propositions of this research we first discuss dimensions of Fountain work. Jane Fountain provides a framework for analysing issues concerned in this research. The framework that is assisted with overview of the e-government revolution through reshaping the public sector, renegotiating the social contract between citizens and government, and how it is challenging existing institutions and bureaucracy, sets its fundamental premise as "technological change requires complementary organisational change", meaning that technology, institutions, and organisational form evolve simultaneously and any considerations of achieving better performance of government through e-governance should be the result these factors to change together. The form and effectiveness of these factors of course depend on a variety of considerations.

The term *Virtual State* Fountain presents, indicates a situation where government activities and information increasingly flows over the Internet rather than through formal bureaucratic channels. In this contribution Fountain integrates theory with the practical concerns of implementation and evaluation of ideas around ICT in public sector organisations. Based on analysis of the Internet's impacts on federal, state, and local government agencies and the

analysis of intergovernmental relations and cross-agency integration, she illustrates federal efforts to link agencies under the National Partnership for Reinventing Government and then proposes her framework. In her work Jane Fountain argues that effective implementation of information technologies in public organisations is closely tied with an understanding of institutional theory.

This is based on the fact that the types of information systems and technologies used in public organisations are not simply purchased off-the-shelf and require extensive customisation with critical issues related to their implementation including integration, coordination, and organisational culture. Fountain's analysis reveals that information-based organisations are highly rationalised and hence standardised, and that technology may provide a means to promote conformance and increase control.

The term "technology enactment" suggested in Fountain's work refers to decision making under uncertainty and captures the complexity of the relationships between cognitive, cultural, and institutional structures and the design, perceptions, and uses of information technology.

Jane Fountain's theory considers the ways in which new information and communication technologies will reinvent government and provides a framework for considering organisational potential to make service delivery more responsive and less costly.

Fountain alongside technology enactment framework which can be summarised to stand as: "to improve communication across organisational boundaries...embedded in appropriate cognitive, cultural, social, and formal norms, rules, and relationships" offers a set of guiding propositions for interactions among technology, organizations, institutions, and individuals. A summary of some of more relevant propositions from this theory is presented as follows:

1. Government agencies will resist the potential for dramatic efficiency gains if those gains translate into loss of resources (budget and personnel) for the agency. The logics of technological advancement and rationalisation conflict with the logics of bureaucratic politics.
2. Federal interagency networks will be difficult to build and maintain because the formal institutions of the federal government reward agency-centred activities and discourage cross-agency activities.
3. Agencies lack resources for learning to use IT. The learning curve government managers must climb in any new initiative is steep, as are the costs of organisational

restructuring. The requirements for agency learning suggest that some IT appropriations should be viewed as investments rather than expenditures and should not be traded off in the budget process with other classes of expenditures.

4. The nature of changes necessary to develop a network, will affect the probability of success of the effort.

5. The culture, history, mental models, and standard practices of a policy domain or agency will affect technology enactment feasibility.

5.4.2.1 A critical assessment of Fountain's Technology Enactment Framework

In spite of the high number of citations (over 560) and the influence it has had on PA and organizations literature, Fountain's theory has been the subject of criticism by scholars from different points of view. Here, some of those views are reviewed to help in the development of this research ideas and theories.

The criticisms to Fountain's theory mainly concerns the "Technology Enactment" framework in which three key elements are interoperating to explain the process of the enactment, including: (a) the actual information technologies in use; (b) the two crucial organizational forms that constitute the context of use—bureaucracy and networks; and (c) certain institutional arrangements that shape the perceptions and behaviour of actors. According to Danziger (2001), the framework is proposed to answer this question: "How actors attempt to adopt and implement IT in their pursuit of certain interests and goals within the specific context of public organizations?"

The framework can and has been challenged in terms of the following issues: 1) its theoretical approach (New Institutionalism); 2) linkage with other disciplines; 3) its generalisability ; and 4) it's functionality. The projected issues are highlighted within the above framework in the following.

5.4.2.1.1 The theoretical approach; New Institutionalism

Fountain applies Institutionalism as an integrated theory for linking technology, organizations and institutions. This approach has been challenged not only in terms of validity of the main theory, but in regard with its reliability also. In other words, path dependency and rational choice as the two main dimensions of new institutionalism are claimed of the framework as explained hereby.

5.4.2.1.2 Path Dependency as a source of persistence against e-government

Yang (2003, p. 432) criticizes the neo-institutionalism theory as the source of the failure of Fountain's concept to explain how elected officials, public administrators, and citizens can facilitate e-government towards better democratic governance. Various immature institutionalism ideas (Zucker, 1991) and disaggregated insights ranging from optimistic (DiMaggio, 1998) and pessimistic (Nielsen, 2001) assumptions and preferences, concerns with the employment of the legitimacy imperative acts as a source of "Inertia" (DiMaggio and Powell, 1991) —persistence, instead of change— have been found in the work of Fountain. As Yang (2003) argues, with a pessimistic view to e-Government, Fountain (2001) discussed institutional change as a major precondition for e-Government, but she only talks about the — stability and resistance of institutions, and you cannot find in her work, how this institutional change can be link or facilitate the e-government process. He concludes that Fountain theory is about the start not the destination.

5.4.2.1.3 Aggregation of Path Dependency and Rational choice

Grafton (2003) claims that fountain failed to bring together path dependency and rational choice theories of institutionalism succulently because although —path dependence was seen (and is still seen by some authors) as a serious challenge to rational actor models, it appears that rational actor theorists are able to include path dependence in their models (Korpi, 2000; Mahoney, 2000). Rational actor models have been used to address such diverse subjects as the rise and decline of nations (Olson, 1982), bureaucracy and democracy (Niskanen, 1994), interest group behaviour (Olson, 1971), and arms races (Richardson, 1960).

5.4.2.1.4 Link with other Theoretical perspective

Her approach to the theories and literature in PA and IT is a deliberate linkage between these and the —new institutionalism, which she applies as the glue to assemble the components of her framework. Grafton(2003) criticizes her attack on a list of theories such as —technological determinism, rational-actor perspectives, incrementalism and systems analysis (Grafton, 2003, p. 84). She has marked these theories as shadow theories— the unexamined and invisible premises and assumptions —and claims that they impact on most discussions and consequently misinform the decision making, while she herself apply those theories in another arrangement.

A second criticism is that Fountain's research agenda is not well-linked to the previous literature in both public administration and IT (Bretschneider, 2003, p. 741; Norris and Moon, 2003, p. 418). Norris and Moon (2003, p. 738) argues that e-government is not that different from the uses of other technologies in government. Thus, previous lessons apply to e-government. Grafton (2003, p. 412) agrees with Bretschneider that the bulk of Fountain's work is —useful reformulation of conventional ideas. He also disagrees with Fountain's claims about the originality of her framework. Grafton suggest that: Various parts of Fountain's thesis have been commonplace for decades in the fields of public administration, business administration, science, technology, public policy, and political science. However, instead of presenting her observations as the useful reformulation of conventional ideas, she claims their originality and called them the technology enactment framework (Grafton, 2003).

5.4.2.1.5 Validation for generalization

Her theory has been questioned by many scholars with respect to its generalisability. Bretschneider (2003) justified that —the framework is so abstract, and it is difficult to use it for generalising and prediction. In the same line, Norris and Moon (2003) points to the lack of plentiful testable hypotheses in Fountain's work to present enough evidence to test the enactment theory.

5.4.2.1.6 Functionality

While applying trial and error model can make sense in enacting technology properly, the challenge which has not been addressed in Fountain's work is how public administration is going to make web-based technology work for democratic governance. Norris and Moon (2003, pp. 421– 422) even argues that Fountain's book is not about information technology and institutional change, but about organizational politics. The scholars think that Fountain exaggerates her case for inter-organizational alternatives to bureaucracies (Bretschneider, 2003, p. 741; Norris and Moon, 2003, p. 422). Garson (2003, p. 430) re-evaluates Fountain's leading case and presents evidence that the case evolved much differently than its presentation in the book.

In conclusion, Fountain's perspective could be marked, according to critics, as a cluster of theories without strong theoretical coherency applied among them. It is highly US oriented with very narrow concentration on International commercial system when pursued in the case

studies. Also, the use of the model can be a considerable concern when it is to be used in a different context.

5.4.3 *Organisational change, learning and institutionalism*

Complementing how organisational changes can occur and also impact other entities and organisations, it necessary to review literature related to this area.

According to North (1990) organisational change is a major source of institutional change. North by defining organisation as a group of people, who follow specific collective goals, offers organisations as the major player of the play that institutions are rule of that play. By change in organisation which stems from the change in mental model of policy makers of organisations, the change at environment of the organisation will occur by entrepreneurs who understand that change and response to it. This action and reaction would result the change in formal and informal frame and norms of the social players.

But organisations also can achieve the change through learning from other organizations or environment, from diffusion of innovation (Rogers, 1995) and spill over of experience across organisations (Greve and Taylor, 2000;cited by Greve. H. R, 2005).Literature of institutionalisms also provides the evidence, pressing on external higher order structures and processes that govern organisational actions and choices (eg. DiMaggio & Powell, 1983).

In this line DiMaggio & Powell in their seminal work “The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organisational Fields” (1983) define three institutional isomorphic change: 1) coercive isomorphism that stems from political influence and the problem of legitimacy; 2) mimetic isomorphism resulting from standard responses to uncertainty; and 3) normative isomorphism, associated with professionalism.

Among those three types of organisational change, neighbourhoods organisations and self adoption in coercive condition also mimic model of learning can either illustrate reasons that public organisations modelled private organisations, and why in western context through neighbourhood – both culturally and geographically—changes of Public Administration or NPM has infiltrated more quicker than other contexts. Those perspectives also can demonstrate the logic why in developing countries mimicking from success of organisations in developed states is usual. Nonetheless the organisational change according the DiMaggio & Powell (1983) and North (1993) can direct an avenue towards the aim of this research. If we can find several organisations which can be role models, if these successful organisations

can be followed by other organisations even though the formal coercive mechanisms could not work efficiently, there will be a chance of a limited solution to apply in developing spaces. The literature of learning and diffusion theory can boost our arguments further. For instance Gerev (2005) in his work "Inter-organisational Learning and Heterogeneous Social Structure" reviews findings on what individual organizations learn in response to innovations of others, and develops new propositions on the population-level consequences of this learning. In the heterogeneous diffusion model, three factors influence the rate of learning from an origin organisation to a destination organisation which is susceptibility, infectiousness, and social proximity. The *susceptibility* of the destination organization describes how much the organisation is affected by the available information; the *infectiousness* of the origin organization describes how much information about its actions affects other organizations; and the *social proximity* of the origin and destination organisations describes how easily information is transmitted between them.

Institutionalism: as a collective framework could serve as an integrated language and similarly as logic to facilitate analysis of a subject within boundaries of political science and public choice. The question is: why and how and until when policymakers are expected to be involved in e-government; how global governance drives the states through a non-official and hierarchical system; or who in the public domain, plays role in e-government implementation. Also from an economic discipline point of view "path dependency": how historical resources of a given society can impact on outcomes of state policies such as e-government; or originally how social players such as social networks should be brought to the game of institutional change through e-government.

NPM: In a public administration context the concept serves the research to understand and bring to account the philosophies behind public administration reforms that have been dominated by the concept and context of e-government implementation, in which government managers play important roles.

Governance: can be a theoretical bridge between international relationship discipline and economic development. The approach is also known as good governance either as a goal or road map for development, or as a vision for final step that the term of full potential e-government has employed.

The new growth theory, coming from economics sciences also frame a collective context for the researcher to understand why development and e-government – theoretically of course-

can confidently transform a traditional and under-developed society to a modern and developed one. Also, it is worth understanding how capability approach through providing a participatory and channels of access can provide either development or social capital for good governance and a social foundation for e-governance.

On these bases, we erect our idea of finding an organisation which has a certain level of readiness to undertake a paradigm shift, be or become modern, implement e-government and become a role model for other organisations- in short term-and a proto type for the state to appreciate the outcome and follow the same model in long term.

Here, we first need to understand how an organisation enters a junction (bifurcation) which one of its ways automatically drive the organisation to an expected outcome, a lock-in path or a track towards a planned out come. This is not to claim that this critical juncture can happen through an expected planned action, but in contrast our target is to find out the distance between critical juncture and the outcome. For instance an object in looking into organisations will be finding a case (a catching up organisations) that fall in the path of modernisation. Here our question will be, whether this organisation is located in the cross road of good governance or not. Further we ask the question of whether this process could lead to a non-returnable path or track that the organisation achieves its final objectives. In other words we want to answer whether the organisation gets settled and becomes stable in the course of transformation or not. For instance when an organisation is facing the bifurcation it may not survive by keeping its current structure, role and status. So in practice our bifurcation point is the juncture where a given organisation could depart from the Weberian bureaucratic model and embrace and implement NPM as the alternative to modernisation and better governance.

Going further if an organisation in a developing context could implement NPM successfully, can we expect that organisation to migrate to a state of reinvented government? Putting this in the context of e-government maturity stages; if an organisation could reengineer its processes – third step of e-government model- could it be expected to meet e-governance requirements and implement it or not? In theory when the 3rd step of e-government is implemented we can expect 4th and 5th steps to mean e-governance while in another direction, change of government role through good governance is not operational. Hereby considering self reinforcement mechanisms either through a “Functionalist” or a “Power” approaches in “Path dependency” context we can find out whether the targeted outcome of the journey, e-governance is achievable or not?

The next point to consider is even if we find an organisation to undergo a process of modernisation (implement NPM) and achieve standards of e-governance, how this organisation can pass the impacts to other agencies and government departments/organisations, central government and finally the society?

Whilst such organisation involves to become a role model –modernize-organization, its independency from the state-devolution and self-regulating- gradually will be increased, the process that could result a type of institutional change (North, 1993). Such initial event, its diffusion (DiMaggio & Powell, 1983) and its reproduction “self-reinforcing sequence” (Mahoney, 2000) theoretically is explainable. This duration also can be interpreted through the “Rational Choice” theory, by the “utilitarian” explanation, the process that through it; organisation leaders keeping role model position of the organization for maximisation and protection of their interests and positions—if the organization in this circumstance could hold its status, the reasons for withdrawing of such organization naturally will reduced, the process that could continue and tie with finalising of long term e-government implementation. Also through a “Functional “explanation, this organization may contribute in process of survive of the political system –in particular when the system still have not sufficient authority or power to reproduce its traditional relationships and existed institutions.

5.5 A phased approach to e-government implementation

The central approach suggested by this research to seek solution for e-government in developing states can be summarised as bridging between general characteristics of developing nations—weak state and poor social institutions— and developed or advanced developing countries—good governance and modern institutions. This is, as argued by Heeks (2001), an area between the gaps of rational reform and socio-political realities.

Instead of expecting shift of e-commerce and e-service paradigm to be started and led by private sector— as experienced in developed states— and transferred to government departments, or imitating from developed states as they have implemented, we suggest to target for governmental organisations with some specific characteristics, which we discussed before, i.e. being relatively independent from the central government, of such can be semi-governmental organisations or those that have corporate regulations, to take this role of leading the way, become role model and diffuse the outcome of e-government to the state.

From another angle, if the typical approach for introducing e-government to developing states has been a kind of transferring of knowledge or technology from developed world to them –

we established to be a highly risky approach, we suggest here to follow the route of shifting paradigm from developed states to developing through two or three rounds or stages. This new approach will begin the transfer from a modern state to a somehow modern organisation in the developing country, then from the set pioneer organisation to other ones including the central government. This approach in fact addresses reducing the gap between too ambitious reforms with inefficient politics targeting rapid growth and leap frog to development by weak state and unfortunate social capital, and the required outcome by offering a “pilot” modern organisation which can successfully achieve modern criteria and stand as a role model for state organisations. This makes sense because this selected pioneer has the minimal gap in terms of being a modern entity with developed states and in the same time the path it goes and follows can be understood by other domestic organisations including the central government.

In other words instead of e-inclusion or IT for all (government, business, public) which is more of a fashionable idea to catch up with the new and growing Information-Society, we chose the readiest units that can take the lead and educate others to prepare and moves toward good governance or e-governance as the general goal of the state.

Another aspect of this proposition is to offer an alternative for stressing on building some of major required institutions for development, instead to narrow our target in first step to organisations which have already achieved a level of institutionalisation and have likely in the track towards the new equilibrium and sustainability. In such organisation we suppose existence of a situation to play as a catalyst or trigger (conjuncture) towards a new alignment for improving the current institutions and getting to the new equilibrium. Such situation could be a moderate external pressure or encouragement, the organisation leader’s intension, a team of higher authorities from different political and administration positions to support it, or even an alignment of interest groups related to the organisation. In here the alignment of stakeholders’ interest and ideas comes from a natural process in the form of unwritten consensus instead of attempting to build such consensus among major levels of policy makers and policy executers through the rulemaking procedures.

From an institutionalisation point of view this approach will replace the paradigm shift through a comprehensive plan/program needing complex designing and extraordinary executing with unavailable resources, that has a great potential for failure (Fountain, 2000) with an approach that transfers the paradigm through learning and imitating.

5.6 Relationship between IST and Conceptual model

To identify relationship between Information System Theory (IST) and what was expected to be developed in the research, a summary of the research work on one hand and IST capability would be useful. In the model, the researcher is looking for a way to create an organizational change leading to an institutional change with a high possibility of diffusion and influence on the state institutions in a developing context. This organizational change, according to our model, should be initiated by a departure from the original context—for instance to be exempted from general rules or to cut its dependency from state budget— through setting up a modern paradigm—NPM— and fixing modernization standards through path dependent mechanisms—Reactive Sequence or Self-Reinforcement. The main hypothesis of this research was that only in a condition adhering to such criteria the “Full potential e-Government” has the chance to be implemented successfully. The model considers if such organizations have experienced of being in a role model position, the possibility of diffusion to other organizations and, hence the state will rise considerably.

However, the theoretical proposition faces a critical question here. The question relates to the risk associated with success (or failure) of such a triggering considering specific situation in developing context. Issues such as poor availability and access to data in developing context, risk of adaptability of IST solutions imported from modern context, and wrong or unworkable strategies in the design, run and performance of systems, etc., may play a role to increase the failure. The answer to this question partly falls in the field of Information System Theories (IST), in other words whether shortcomings in developing context can be compensated by IS theories, hardware, software and solutions?, or whether incompatible social culture added to lacking transparency and poor quality of data, commonly produced by individuals and society, can be removed by IS related suggestions?

Here, it is necessary to explain that in this research the efficiency and duration of consensus around e-Government is subject of in-depth case study, and therefore choosing the right strategy, proper design and implementation or performance of the systems cannot be guaranteed neither in developed nor in developing context. To approach the answer of the questions, it is worth bringing a general definition and main aims and objectives associated with IS.

5.6.1 Information system dimensions

IST functions have been viewed in various ways by IST researchers from a broad to a narrow sense. Some suggest IS as the ways and techniques of collecting, storing, processing, and communicating information (Britannica.com.2010). Wand and Weber (1995) indentified IS as an artifactual representation of real-world intended to model, and the tools constructed by humans to reduce the costs of monitoring real-world systems. While Markus et al. (2002) and Walls et al. (1992) confined at developing executive information systems (EISs) and systems to support emerging knowledge processes (EKPs), respectively, within the context of "IS design theories." Hevner. R et.al (2004) introduced IS theory as a framework to bring together two paradigms of "behavioural science" and "design science". The behavioural science concentrates on theories to describe or predict human or organizational behaviours while design science is devoted to develop human and organization qualifications through innovative artefacts such as constructs (vocabulary and symbols), models (abstractions and representations), methods (algorithms and practices), and instantiations (implemented and prototype systems).

In the field study and supply of data, Action Research is built up by assuming that complex social systems cannot be reduced for meaningful study. Human organizations, as a context that interacts with information technologies, can only be understood as whole entities. The fundamental contention of the action researcher is that:complex social processes can be studied best by introducing changes into these processes and observing the effects of these changes(Baskerville, 1999).

In another theory, organizations are considered as the context of individual and networks such as Actor-Network Theory (Tatnall, Gilding 1999), the theory that see the world full of hybrid entities (Latour, 1993) containing both human and non-human elements, (Callon, 1997 p. 3). Actor-network theory, or the 'sociology of translations' (Callon 1986b; Law 1992), is concerned with studying the mechanics of power as this occurs through the construction and maintenance of networks made up of both human and non-human actors. It is concerned with tracing the transformation of these heterogeneous networks (Law 1991) that are made up of people, organisations, agents, machines and many other objects. It explores the ways that the networks of relations are composed, how they emerge and come into being, how they are constructed and maintained, how they compete with other networks, and how they are made more durable over time. It examines how actors enlist other actors into their world and how they bestow qualities, desires, visions and motivations on these actors (Latour 1996). Law

and Callon (1988 :285) put it this way: “Our object, then, is to trace the interconnections built up by technologists as they propose projects and then seek the resources required to bring these projects to fruition.”

5.6.2 Discussion

It can be concluded that IST can provide sufficient theory and knowledge for this context that data, information and knowledge could be produced and flow through social and computing networks. Having those networks and standardized data in developing context, we can provide the knowledge and techniques provided in developed context although their problems may vary. Therefore we can assume that if institutional barriers could be removed, IST is enough for implementing, modifying and implementing even in non-modern context. To this extent the researcher uses IST as a Black Box in the model. Black box in here means that theories and suggestions of IST can be the counterpart –as a *problem solving* paradigm –to the puzzle we conceptualise in this research. For instance, a large size government with vast overlapping issues and also challenges linked with ethics of de-centrifugation and with disparities among political and economic institutions, local and central, public and private (Evans,1995), low quality of data and information, politicised and in-trustable frame of work in developing context, inappropriate infrastructure and computing literacy in design step (Heeks.1999), and lack of enduring dynamisms (Mahoney.2000) to reproduce the changes have been experienced in state organizations as they have approached implementing e-Government (Heeks.2005). The researcher’s proposition is, however, to consider IS in the model as a Black Box or a missing part of the puzzle. Referring to IS as a Black Box has precedence in IST, considering it as the middle stage between INPUT and OUTPUT that transforming requirement of the concept.

Through this Black Box view, in the output area we firstly can expect some changes in mindset and behavior of staff and managers, but no guarantee can be envisioned that such changes will have certain outcome in terms of a better governance, more transparent and accountable organization or more secured privacy for participants in performing the IS. Secondly to reproduce the organizational changes, we need to ensure a win-win game and play among all players, and protect the consensus over the changes, so that satisfaction of end-users —middle management and citizen—, or trust, metaphor determinism or hybrid strategies which IS theorists suggested will be considered in the implementation stage.

Thirdly through the working stage and performance of the system also IST can provide technological solutions for inserting control over unwanted implications resulting from changes, and modify them before growing. Fourthly, benchmarking as a general strategy, advised by IS workers, could bring some self-discipline among managers and or better commitment of staff to objectives of the organization. Also a decentralized or hybrid plan, which IST could provide, may educate indirectly the state’s rule makers or key decision makers on the benefits of devolution and decentralization and encourage them for reforming and realigning state’s central-local relationships.

5.7. The Conceptual model

With reference to the New Institutionalism theory and framework, and in order to illustrate the conceptual model, firstly self-reinforcement pattern is employed, as shown in Figure 5.1, to present all elements of an institutional change. The sequences including: "initial condition" where an institutional state may not reproduce more (Time one); "critical juncture" where institutional change may represent certain tracks towards outcome (Time two); and finally how this journey sequentially will reproduce to meet the expected outcomes (Time three).

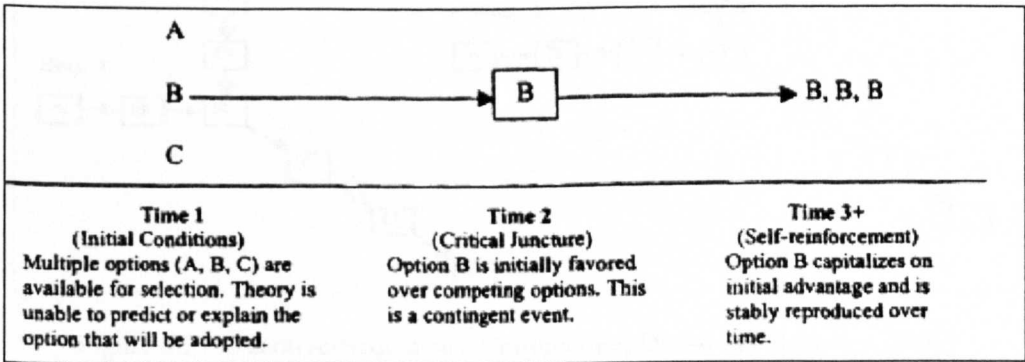


Figure 5.1 Illustration of contingency in self-reinforcing sequence (Mahoney, 2000)

Secondly, the researcher makes reference to the "Reactive Sequence", shown in Figure 5.2, to provide more details about each of the above orders. For instance, by recognizing characteristics of two or more intersected autonomous events, it is possible to provide grounds for predicting available multiple options during and after that intersection. Thus, the model shall consist of at least three sections: 1) initial condition (Time 1), the condition that in our case, an organization may depart from its original context; 2) critical juncture, specific setting that theoretically or experimentally its consequences are predictable and explainable

(Time 2); and 3) how this setting will maintain and provide a causal chain and sequential pattern that will transmit sequence of Time 2 to a certain outcome in Time 3. This is considered as an approach that will conclude into the Good Governance and e-Governance. It is necessary to remind that outcome in our cases may face two types of setbacks: first, whether the organization may institutionalize; and second while this institutionalization diffuse to the other state organizations.

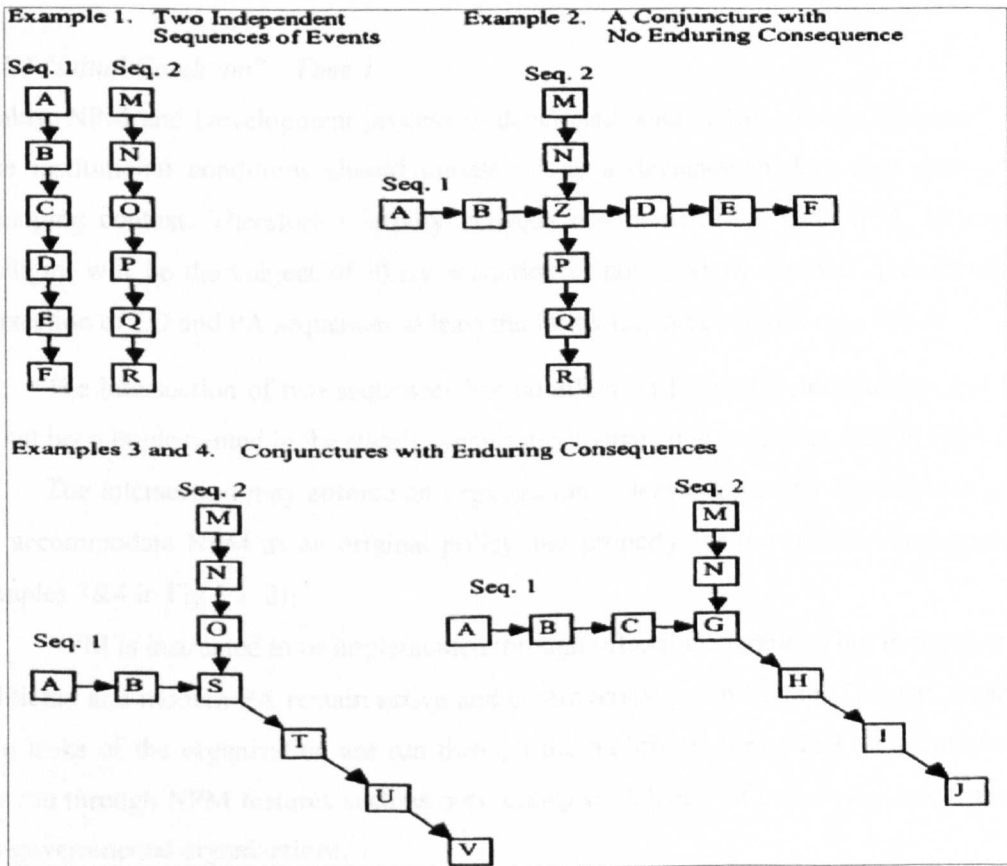


Figure 5.2 Reactive-Sequences, Conjuncture, Duration (Mahoney, 2000)

5.7.1 Scenarios of institutional change

Before building the model, it is of value to remind that both approaches of new institutionalism and mechanisms of institutional reproduction —Self-Reinforcement Sequence and Reactive Sequence—have been applied in the conceptual model.

In order to build likely scenarios for initial condition, the researcher benefits from the idea of Reactive Sequence that defines breakpoint as a step that "two or more independent institutional arrangements intersect and produce multiple options. Here, the Economic

Development (ED) as the first original sequential arrangement and Public Administration (PA) as the second arrangement are intersected. The reasons for this intersection were: 1) it has been occurred in reality in modern context; and 2) the expected objectives of this research—Development and e-Governance— inherently were dependent on both above paths. Moreover, Globalization trend (Seq.3) and IS evolution (Seq.4), that encompass those original sequences, play the role as environmental factors.

5.7.1.1 "Initial Condition" – Time 1

Notably, NPM and Development process in developed context has already happened while those institutional conditions should initiate — as a deviance in depended path— in a developing context. Therefore relativity between non-modern PA and NPM, as a global paradigm, will be the subject of likely scenarios in non-modern context. Accordingly, by intersection of ED and PA sequences at least the following three options may occur:

- A. The intersection of two sequences has no effect on PA or ED trajectories, and NPM has not been implemented in the state's organizations (matching examples 1&2 in Fig 5.1 2);
- B. The intersection may enforce an organization to leave its current institutional pattern and accommodate NPM as an original policy and property for the organization (matching examples 3&4 in Fig 5.1. 2);
- C. NPM is instructed to or implemented through official declarations but in practice both traditional and modern PA remain active and controversially conflicting. This can mean that main tasks of the organization are run through the traditional forms and unessential duties may run through NPM features such as outsourcing or delivery of common services through non-governmental organizations.

In result, only option "B" could attain the required criterions, the condition that an organization departs from its original context. For instance, policy makers outside and inside of an organization, due to long term budgetary crises, achieve consensus about independency of the organization from governmental resource and public regulations.

5.7.1.2 "Contingency" time 2

In this part, we are about to find out if an organization can fix NPM structurally and depart from its original context. how available theory and past experiences in developed context could serve our model. In addition, show further sequences of the institutional transformation towards e-governance.

5.7.1.2.1 Main institutional patterns toward Economic Development and Governance

To know how an organization could depart from dependent path, we need to indentify the characteristics of the path and find how this departure may take place, and when its consequences may conclude to an institutional or structural change.

"**Economic Development**" arrangement according to North et.al (2009) has undergone two historical sequences. First, "all large societies up to 1800" have suffered a type of control of violence, namely Limited Access Order (LAO) which still is alive in developing states, and the Open Access Order (OAO) that is experienced only in developed states. This institutional perspective of economic development has been adopted in this work due to its novelty, being sequential and durable, as well as being multi dimensional (political, economic and social), as a supplement to previous theoretical discussions.

This theory offers a spectrum of three types of LAO in developing context, one in transition and one distinct process of OAO in developed states that is characterized and summarized in the following:

A- **Fragile LAO:** this primitive step of development could be established with a type of coalition within dominant elites to control external and internal violence. Government, as one elite organization, may exist but it has no monopoly of power. Other elite organizations have direct access to violence. They may produce both types of public and private goods including coercive action and rent generation or set up limitation in access to the rents. This type of LAO, because of the very simple nature of involved institutions, could not protect individual interests and its stability;

B- **Basic LAO:** in this mode, state has a well established formal and sustained government, often as a religious party or an authoritative party (i.e. Communist party in socialist countries). Elite's privileges commonly are recognized by the state. The institutional structure facilitates organizational forms of citizens and the way in which they have to be located in the direct orbit of the state (i.e. ruling parties). Private elite organizations are those which have ties with the state even including MNC's branches. These and other specialized and division labour organizations, derived from ability of the state to create organizations (such as ministries, public enterprises, and banks), produce public and private goods for the dominant coalition such as managing trades, education, or infrastructure provision. Violence still remains dispersed among state organizations such as police, secret services and branches of the military, each with a way to extract rents through corruption;

C- **Mature LAO:** through this final form of development, the state supports plenty of organizations within and outside of the state. Sanctioned organizations work to secure some specific privileges, generate rents in favour of dominant coalition and confine competition inside of them. There is a body of public law that specifies the offices and functions of the state, provides ways of resolving conflicts within the state or amongst the dominant coalition. Written or unwritten laws are embodied in some state organizations. Countries such as China, South Africa, and India may fall within this category.

D- **In Transition:** this order may occur through two steps. First a Mature LAO arrives to the border conditions to facilitate intra-elite impersonal exchanges, and sets up: (1) centralized and consolidated control of violence; (2) rule of law for elites; (3) support for continually elite organizations outside of the state. Second, is when intra-elite relationships are based on the impersonal basis of "citizenship".

E- **OAO:** this condition may emerge through institutionalized and structured political competition to generalize and sustain open access in the economy as well as economic competition to protect open access into the political resources. Political elite control military and police, and they monopolistically authorize the function of violence. Economic, political and social groups can organize, reorganize, and reformulate themselves to protect their interests in response to government policies and to put pressure for change. The state supports organizational forms of activities that are open to all citizens, and rule of law is enforced impartially for all citizens.

In summary, according to North's theory the journey between Fragile LAO and Mature LAO is not necessarily sequential. However, in this spectrum, the degree of limitation or generalization of access to economic and political resources as well as impersonalization of citizen or outer elites in competition with state organizations could account as the overall criterion for progression or setback. Thus, if the mechanism or measure of a governmental organization's access to public resource alters, or the organization's engagement in rent distribution, suffers any fundamental change, we can expect a departure of that organization from its original context. Moreover, from another point of view, reducing the distance of the state to good governance, for instance minimizing the state or a deviant change that a specific governmental organization may accept in way of its governance toward good governance, can be another criterion of institutional departure. Hence, although Governance does not bear a fixed meaning, it could commonly be recognized as the outcome of development in both

developed and developing contexts. It can be a code for coordination between policy makers and policy executers, in particular public-private partnership in modern states (World Bank, 1999), or a concept to optimize relations between the State and the Market in national and global sphere (See Peters and Pierre. 1998). In developing territories, also governance accounts as an objective for reducing poverty and corruptions, generating capacity as well as building appropriate institutions for sustainable economic growth (WB, 2000, 2001).

5.7.1.2.2 Public Administration (PA) evolution

Another institutional arrangement that may support the conceptual model of the research is Public Administration. A review of the history of PA using "reactive sequence" approach will explain the sequences from traditional to modern governance as follows.

G-Traditional or charismatic authority: according to Max Weber's theory (cited by Wolfgang,1992), this type of governing is embedded on tradition and historical believes of people where they obey charismatic leaders because of their "gifted exceptionality, trustworthiness, and respect". In case of Traditional authority, people obeyed a leader because of his position in traditional power. This type of authority, as Weber believes, has ended from the mid 1800's in Western and modern countries while many kinds of them are still alive in developing states.

H-Bureaucratic organization: Max Weber believes this type of organizations, which emerged in 1800's, was a response to the need for administration of the expanded industrialization and urbanization growing in several capitalist states. It was built up from the legitimacy embedded on law and regulation, bearing characteristics with consistency, discipline and rationality, and also including impersonal and predictable decision making. Bureaucrats usually were selected for their qualifications, and were compensated via a salary. According to Weber, the goal of bureaucracy was to maximize efficiency which was functioning through three key features 1) formal, hierarchical and structured power and authority; 2) a sophisticated, rationally systematic division of labour, 3) it performs according to formal regulations and impersonal decisions and communications derived from formal rules recorded in permanent published forms.

I-New Public Management NPM: Emerged in a few Western and OECD countries and then expanded to other states from developed and developing countries during 1970-1980's. This model of PA was a response to failure of Bureaucratic organizations in terms of inefficiency, effectiveness and budgetary problems (Heeks, 2001). The causes for NPM to become a

global phenomenon have been viewed differently by different researchers. Waltman and Studlar (1987) noted on policy convergence within the states with a similarity of political elites tendency—i.e Thatcher and the Reagan. Bennett (1991, p. 31) emphasized on policy learning between countries as a result of “wider socio-economic or technological forces, same level of development, similar problems and feasible solutions” as an environmental factor”. Hood (1991, p. 3) connects the spread of managerialism in government to wider administrative mega-trends by claiming “ideological neutrality” or “apolitical framework” of NPM. Headey (1996) cites Shils (1962) believing that the West provided framework, standards and models that the elites of the developing states could reshape to fit their own countries. Similarly, Haas (1980, p. 369) observed: “once knowledge escapes the political and economic control of its originators, it becomes a kind of international public good”;

J- New NPM or Joint Up Government: while during 1980s and early 1990s NPM was known as “a public management for all seasons” (Hood 1991) or the “one-best way” (Gendron, Cooper, et. al. 1999), a well packaged set of credible managerial innovations, it was criticized in terms of the gap growing between its promises and the reality. New unwanted issues surfaced, such as disparity between policy and execution, difficulties of coordinating among different stakeholders, and integration within decentralized and privatized or self-regulated organizations. In this condition, Joint up Government as a solution was suggested in Britain in the late 1990s and early 2000s. JUG was about “achieving horizontally and vertically coordinated thinking and actions”. As a Minister for the Cabinet Office (1999) described: the framework pursues eliminating contradictions and tensions between different policies, increasing the effectiveness of policies; better use of resources through the elimination of duplication and/or contradiction between different programs; to improve co-operation between different stakeholders and producing ‘synergy’ or smarter ways of working, and to produce a more integrated or ‘seamless’ set of services from the view point of the citizens who use them.

5.7.1.2.3 Discussions about "Duration" Time 3 in-developed spaces

Although by implementing NPM, the self-Reinforcement approach could illustrate consequences of organization modernization, the Reactive-Sequence approach, relying on what in fact has happened in developed countries, could provide a more convincing and detailed pattern. It is a trajectory in which NPM and e-Government are included and are tracking towards e-Governance, and the sequences have been examined in developed and

advanced developing by now. In other words, it is a path dependency which is embedded on economic development literature and sequential events happened in the field of Economic Development and Public Administration.

For the PA side, Traditional form of authority, as explained in item G above, is relying on beliefs and personality of leaders. This model could not reproduce further through logic of "power" and "Legitimacy" explanation in industrialization era because the need for large and sophisticated forms of administration will not become available. In this scene, bureaucratic organization (item H above) could provide a system that essentially was set up on the basis of hierarchy and rational arrangements. This administration instrument, in action and in accordance with "Utilitarian explanation", could not work more efficiently. Therefore, NPM (item I), by offering a win-win situation for both the State and Market institutions would conceptualize a triangular perspective in which managers, stakeholders and citizens are integrated. This governing model, however, subsequently failed, not for fashion reason or losing its logic but for its deconstructive nature, the matter which contradicted with "Functional explanation" that each function should serve survival of the whole system. Here, JUG (J) and Governance concepts suggest a newer logic which is highly dependent on ICT and IT. In this governance model, contribution of citizen, community and other social networks in policing and executing, integration of policy and action, deriving policy from public tendency and executing them through public participation are supposed. The goal of JUG could not be materialized except through a shift of government role and functionality to governance. This new tracking begins with e-Government and lead towards e-governance (Kettel.2002).

In the second sequence of Economic Development, OAO also obliges open access of citizen to government information silos, the resource that can play highly valuable role in economic and political competitions. Such open access to government data and information, even to back office level, provide ample opportunity for stakeholders to fight for and follow their objectives more efficiently. This condition can only be met with ICT and e-Government even in modern states. E-decision making, e-engagement, e-networked guidance and e-control are several examples of governance by "e".

Transparency and accountability which can be expected from new models of e-procurement or e-tendering, and public participation in terms of e-budgeting or e-rule-making while important aspects of the governance by "e", stay at a lower level comparing with generalization and impersonalization of access to information and knowledge. This type of

OAO, open access to information and knowledge, relies on two other environmental and instrumental processes; Globalization (GLB, Seq.3) and change in Base of Information Systems (BIS) of governmental and public organizations (Seq.4). Globalization in this model reproduces itself through self-Reinforcement mechanism. Globalization process is relying on ICT and provides a somehow general access of all to resource of all. All individuals and groups through their connections and communications frame a new globe. Although this access is currently controversial and somehow discriminating, the possibility of this access in terms of technology is more simple and inexpensive than other types of resources. Another contributing factor in our model, which obviously has influenced the way that administration systems are functioning, was the effect of IT on information systems of governmental organizations. This element facilitates expansion of routines and standards as well as spread of impersonal exchanges, more rationalisation and better transparency, elimination or reduction of the problems of hierarchy, and reduction of the distance between the line staff and headquarters, back and front offices, and between central and local offices. These services could not be possible without the use of IT and ICT in the process and IS of the organizations. This is considered as the 4th sequences.

The sequences that intersect with PA, in point of NPM and economic development could trigger a new way of living for the state and government .The process that initiates with Presentation Step (V) will sequentially go through further steps of: Transaction(U); Transition(W); Integration(X), and then toward e-Governance as the destination and outcome. Figure 5.3 demonstrates the model of institutional pattern of e-Governance.

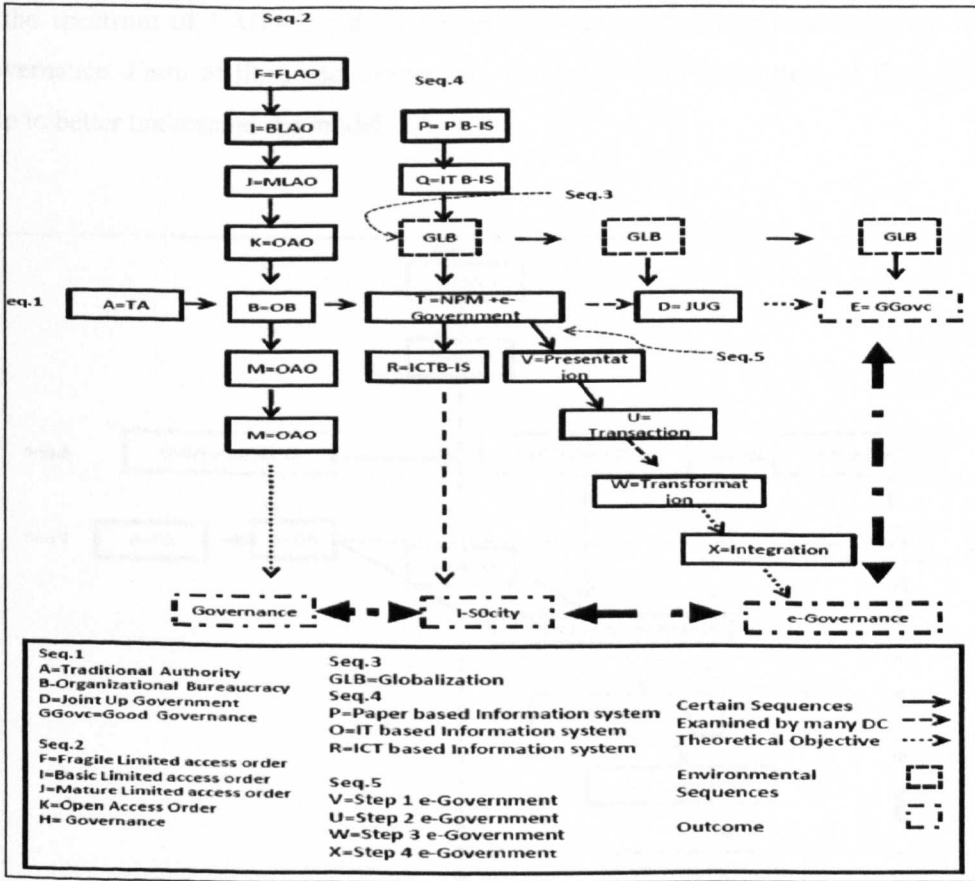


Figure 5.3 Institutional pattern of e-Government in modern context

5.7.2 Extension of model to Developing context

The different context and properties of developing countries, for instance lack of OAO, social experiences about PA, secure interconnection with globalization process, and mainly imported ICT, will impact upon the condition for proper trigger of the tracking towards e-Governance.

All the above initiations, mechanisms and objectives in developed model should be revisited in the light of such position and impacts issues. Many of the sequences such as mature LAO or NPM are yet to be experienced in developing context. In this situation, all properties of the developed context have been brought to the model as environmental elements. Some are considered as globalization related concept such as Good Governance and Governance, and some as technological organization such as NPM, IS modification, or hardware (i.e computer and Internet). Therefore while we exhibit real sequences in developing condition—Sequences

in the spectrum of LAO—we demonstrate deviants and intersections that may lead to e-Governance. Form of lines and connections as identified in the bottom of figure 5. 4 could help to better understand the model.

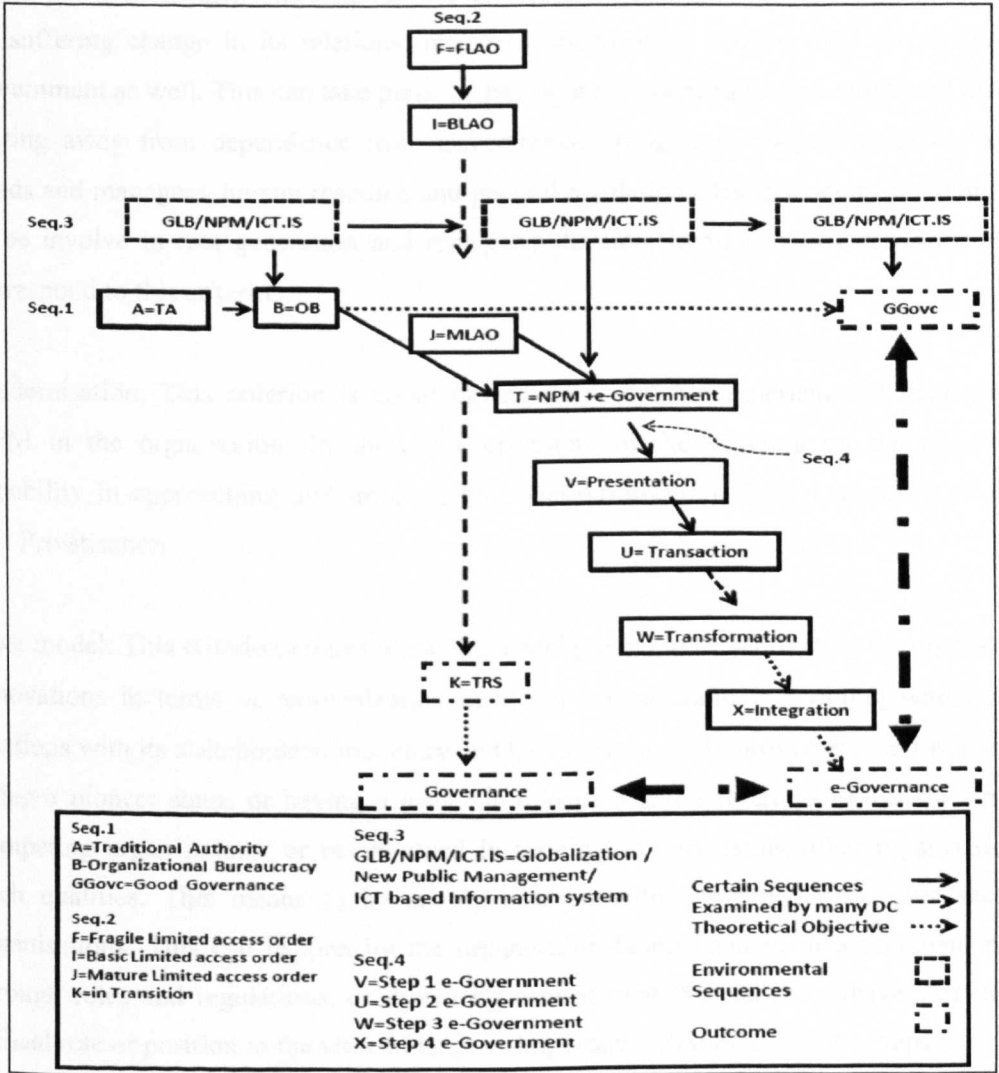


Figure 5.4 institutional pattern of e-Government in developing context

5.7.3 Criteria for the candidate organizations

In the first step, our question was how an organization can get to the starting point for an institutional change. That is in practice in institutionalism terminology the “initial condition” towards modernization of Public Administration (PA) “critical juncture”. To provide answer

to this question, we need to determine the criteria for identifying the preparedness of the organisation by referring to our conceptual model. The filtration process will, according to the conceptual model, be based on the following five criteria:

Organizational change: This criterion has an organization departure from the original context by suffering change in its relations, inside of organization, with current stakeholders and government as well. This can take place by having a path dependent or institutional history of getting away from dependence from governmental programs, budgeting, appointment of heads and managers, human resource and general regulations. Experiencing situation such as to be involve in rent generation and rent generalisation, framing social networks, etc. can correspond to this criterion.

Modernisation: This criterion is about having an acceptable experience of deployment of NPM in the organisation. In short, the criterion will be standing on the organisations capability in approaching and implementing Decentralisation, Deregulation, Marketisation and Privatisation.

Role model: This criterion relates to having a background in disseminating the organisational innovations in terms of reorganization inside of organization or booming realignment of relations with its stakeholders, monetary and human resource improvement, self-rule making, being a pioneer status or having a leadership position and a reference status for similar or competing organisations, or be involved in training and educating other organisations for such qualities. This means to be an organisation with position across other sectors or organisations. This can happen by the organisation being situated in a dominant position through rules and regulations, or driven by control over the resources driven, or having a critical role or position in the view of large or important social or political groups.

Adaptability of organization with IT and ICT as well as governance issues: This is about the organisation to have some space to experience public participation in terms of public-private partnership, or at higher level state-market coordination. Having a general understanding inside of organization or matching of organizational goal with some modern concepts i.e. Functioning IT and ICT facilities and IST solutions such as TPS or DSS and EISs in the organization reputation could be another criterion for preparedness of this organization to be a significant member of Information Society or important player in Globalization process.

Each of the above mentioned categories of transformation will be explained by a series of detailed measures which we discuss them in the following. For the first criterion, the following indicators were considered:

1.1. Access to sustainable financial resources: this means that, the organization by having specific regulations or other authorizations have permissions to provide its required resources independent from government aides, budget, restrictions or interventions. For instance, in the countries that state resources generally depends on raw materials export –such as a lot of developing countries - natural changes in climate or periodic changes in international markets may produce insatiability in their macro economies that impacts on permanent goals of governmental organizations. In such countries, framing a trade off between cutting governmental budget of some organizations and authorising them to “self financing “or self regulating could bring an opportunity for independency from the state obligations and original context.

1.2. Managers independency: The organisations regional or local branches in different areas should be able to shield their policies and affairs against local elite’s interventions or influences. Localising staffing coping with protecting managerial decisions from the ethical interests or arrangements could be some examples in this domain.

1.3. Consistency of and alignment among policy makers and policy executers in terms of organisational goals, strategies and preferences, or existence of a central body to lead the whole process (leadership).

1.4. Possibility of citizen’s participation in organisations matters and issues: This criterion may restrict the organization to those that usually involves in low policy and public services.

1.5. Being located in a safe distance from state as well as market institutions’ territory. A semi-governmental organisation for instance, with a clear linkage between output of the Organisation and outcome of government could be a good example of this suitability.

For Modernization factor, second criterion the following indicators are employed:

2.1. Privatisation; this capability and intention not only in supplying non-essential needs and requirements of the organisation but in strategic and professional aspects of the organisations missions and objectives also should be traceable.

2.2. Marketisation: adopting a market oriented framework to organization day to day activities, to make the main outputs or functions of the organisation tradable in market, this

qualification may naturally conclude and support privatization trends and hence reduction of governmental control in pricing of the organisations outputs.

2.3. Deregulation: simplifying and shortening processes, removing or ratifying controls and related procedures (i.e. in giving licenses or providing monitoring roles and services they may have).

2.4. Decentralisation: to delegate important/critical decisions from centre to local and line management levels, as well as to other affiliated organizations or separate units.

The Role model criterion or rate of diffusion of organization's capability of the can be identified through the following considerations:

3.1. A widely recognition of this position for the examined organisations among policy makers, high level authorities, experts and elites, and also stakeholders.

3.2. A history or case of imitation of organisations approach by other similar organisations via introducing changes or reforming their regulations, and adjusting their features and activities in line with the role model organisation.

3.3. States intention or any official plan for initiating a prototype organisation for pretesting of Modernization programs or setting a role model organisation.

3.4. Being a cross organization or having sufficient authority to influence other organizations by the rules or regulations or through other incentives such as resource distribution.

3.5 Neighbourhood, similarity of organizational problems, requirements and solutions and proxy with other PA also locating in cross organizational status.

Following issues and considerations are considered for ICT, e-Government and e-Governance compatibility of the organization:

4.1. Background and experience in employing IT and ICT and relevant advanced IS tools.

4.2. Reliance of the organizations missions and activities on information and knowledge productions or ICT.

4.3. Compatibility of organizations main objectives with online and virtual service delivery.

4.4. Clear linkage between vision and strategy of the organization with main requirements and priorities of the state, for instance how output of a given organization could consequence general social satisfaction or state requirement.

The process of filtration of candidate organisations which may be suitable to take a leadership role in advancing the e-governance through e-government needs to go through a number of

levels. Besides, it is envisaged that paying attention to the specific context of study is a critical issue, and therefore some particular questions should be asked when we consider the case of Iran. Such questions include:

- 1) Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of “structural adjustment” a program that suggested with OECD countries and supported with UN organizations during mid 1980’s-1990’s synonymous with Taadil policy (an reform program that which was an economic reform policy developed and partially implemented in years between 1988 and 1996).
- 2) How the consensus among policy makers-leftists and rightists- as well as other internal and peripheral players within the state have involved modernisation of the concerned organisation?
- 3) How output of the considered organisation can relate with outcome of the state?

Summary: To identify and nominate this intermediary organisation we should define the criteria for this purpose. We first theoretically discuss the circumstances surrounding selection of an appropriate candidate organisation in here and then summarise them to prepare the ground for conducting the empirical study of a developing country. Further details of the criteria will be developed during the case study stage in which it is anticipated to bring a team of experts who will assist the researcher to define the criteria more clearly and practically.

The first point to make is that majority of countries classified as developing are known to have a raw material based economy. In particular we can refer to Oil-led economies, which happen to be the context of our study, and according to Karl (2004) the main reason for their poor development is formation of an inefficient link between survival of the state, its fiscal system, the environmental economy and the democratic system of governance. In comparison with developed states, Karl argues that oil income as an external factor can disrupt the relationship between survival of the regime and economic growth requisites such as right of property ownership. Also oil price fluctuations can impact on regulations which should serve and protect in long term private investments. She also regards oil-led economies, in general, as governments who own the oil income, and hence the state feels no need to the support from taxation or tax payers’ satisfaction or their votes. Here oil acts against democracy and social participations. Based on this view one general criterion would be that the organisation

should be one which can maintain its policy and strategies relatively independent from the central government interventions for paradigm shift. This in simple terms means that the organisation should be to some extent independent from the raw resources (oil) led government.

The organisation should have the features of a modern organisation that has the aptitude and capability for de-bureaucratisation, decentralisation, and more privatisation and marketisation.

The organisation that have more prepared organisational structure and experience to distribute their works evenly, and be able to outsource some of their strategic projects such as IT and IS systems to private contractors are more preferable. This will mean that the organisation does not need to begin from scratch and point zero for its systems including IT and IS systems.

The organisation is expected to transfer its knowledge and experience from the e-government projects to other organisations and networks in the state. Therefore the organisation cannot be one isolated from other organisations which will lead to duality and IT islands. It is necessary that the candidate be somehow linked through a network or cross of organisations, as Fountain (2001) suggests, providing a diffusive role and consequently gets closer to enacting e-government across the whole state.

5.8 Conclusion

Conceptualizing a model for e-government in developing countries, this research provides an instrument for the observation and field study sage or case studies. A solution is being suggested by reducing the size and complexity of the problem, but in the same time in a confident manner generalisable and directive. To set up this tool, three lenses of institutionalism approach have been employed. They have aided the research to frame a multidisciplinary discussions extracted from three strands of schools of thought, namely institutionalism in comparative political science, institutionalism in management and organisational theories, and economic development institutionalism. In this way both main stream branches of new institutionalism, namely "Public Choice" and "Path Dependency" have been brought to the analysis and the researcher has endeavoured to employ all potential aspects of the theory to frame dimensions of the subject issue, e-government in developing country, and bring all relevant considerations together to fill the gap of development from an institutionalism perspective.

The resolution for e-government full potential implementation could be seen in terms of a natural event and process of institutionalisation (critical juncture), or in the presence of a natural and state wide consensus, which should encompass an intersection of general inefficiency problem with reasonable or legitimate solutions or paradigms, toward a new general goal or new preference system –equilibrium . Our suggestions briefly are followed:

1. Semi-governmental organisation is more likely to be the right candidate to have dependence to both government and market and hence have better chance to play a relatively independent role in comparison with departments or governmental agencies. The leadership of such organisations through trade-off between state and market players could play as a double sided party and to represent the position which provides more free hand for these groups of organization’s managers, although the risk of being under pressure from both parties is not negligible.
2. To get away from government’s interventions trap, and to gain the needed autonomy. For a typical organisation this can be only a case when an alignment of formal and informal institution becomes possible even at a temporary base, or all of them experience a somehow collapse or tangible general inefficiency, otherwise to provide a new alignment in this regard may fall to an unknown challenges and unclear time as well.
3. Instead of centralise, decentralize or hybrid approaches (Heeks, 2006) or inter-organisation suggestion (Fountain, 2001), we offer a mixed but flexible strategy to embrace e-government full potential implementation. This is based on developing a mechanism of “Inspiration”, enhanced with catalysts while substances are available, which will work like triggering a domino of changes toward expected outcome. The model in another term is an approach to shift paradigm in three rounds or stages (a: from modern foreign organisation to a somehow reformed domestic organisation; (b: from domestic organisation to other domestic good followers; and c: from domestic good followers to other organisations including central government organisations.

CHAPTER SIX

Case Study in search for a modernised institutionalised candidate as a role model for e-Government (full potential) implementation

6.1 Introduction

The study of literature and an early analysis of e-government in developing countries led the researcher to induce a theoretical perspective on the viability of implementing e-government in developing states. The study concluded that while expecting successful implementation of e-governance in developing states, to bring or support development as the main goal for the state, is almost unrealistic, it nevertheless as a unique and potential solution and perhaps opportunity, can be followed in a phased approach. The suggestion was based on implementing e-government in a reduced size model (a ready and willing organisation) which is supposed to become a role model and diffuse the results (concept and approaches and solutions) to other organisations and hence the state. It is suggested to find a suitable candidate in developing states to act as a starting point, and this has been the reason behind the research reported in this chapter.

To approach technology enactment into the role model organisation in order to lead to social institutional changes in a developing context, three issues should be addressed: first extracting the criteria from different disciplines; second adjusting these criteria with the national/local context; and third generating and incorporating indicators and a methodical approach adaptable to different organisations with different institutional structures and realities. These issues were particularly critical for the cases studied in this research.

Review of the law and regulations of the country and organisations was an obvious part of the research plan but considering that formal law and recorded regulations-in developing context-cannot reflect realities of the state and organisations, it was deemed necessary to translate general ideas of the research to clear headings and structure. For this the need for support from three sources of specialist's advice were detected. First was the need for expert opinion and academically strong views in the domain of institutionalisation and institutional issues as well as economic development in Iran (for instance scholars in economic development familiar with state plans and programmes). Second was the need for experts who could

provide information (and data) as well as their analytical perspectives about the real situation in governmental organisations (i.e. high level authorities with long and multifaceted experience). Third was the need for views and information from ICT specialists either in public or private sectors (such as IT managers in departments, technologists and entrepreneurs or consultancy companies).

6.2 Approach to Case study

6.2.1 Introduction

The study was of an exploratory nature; why and how some institutional situation and status can change or be changed, i.e. realisation of modernisation while the environmental situation and the context is of underdevelopment type and in fact most of the needed situation and criteria are reverse in the real world (for instance in Iran). This approach fits best case study method which is advocated for finding the answers to why and how questions about subjects and issues in the real world. The case study was adopted as the method for this part of the research. The study had to be of multiple cases as it was to find the best candidate among the existing leading organisations in the state. Besides it has to be a relatively in-depth insight into the institutional status of the cases to provide the ground to extend it to state in the process.

In terms of the theoretical and historical view, our main stance is: if modernisation of the state's organizations is a pre-condition for achieving e-governance, and success to set up an state-wide (full potential) e-government without those pre-condition may impose greater risks than benefits, we shall seek a miniature model of the state/government that has the readiness and capability to do so and is also able to become a role model for other organisations including the state itself. This part of the study is undertaken to give us a view on the status of some important and strategically situated organisations and whether they can show a representation of the state's modernisation and hence preparedness for implementing e-government leading to e-governance.

The main questions in this context include: 1)why some organisations can embrace changes institutionally and others cannot, 2)how and through which mechanisms such organisations could re-institutionalise themselves in a sustainable way, 3) whether they are posited towards a modern (per se) outcome , 4) whether e-governance concept fits and can use this outcome as a platform for implementation, and 5)to estimate whether changes and evolutions in such

organisations may diffuse to other state organisations through learning mechanisms with the support of the state.

The case unit for this research is organisation, and the case studies shall support the research questions and demonstrate outputs according to the adopted theories of institutionalisation and modernisation such as following:

Why and through which causal factors or processes a typical organisation may accept the risk of the change in the way that has hitherto been behaved [General inefficiency or disadvantage, pressure of uncertainty and imitation from other organizations, to learn from a new paradigm];

How the case has been re-tracked into the new direction [Randomly; through a procedural or natural consensus of key players; a diffusive vision or a touchable model];

how and through which mechanisms the case reproduces its new condition toward outcome [“self-reinforcing sequence or reacting sequence”];

why the new characteristics of the case may diffuse to others [“new equilibrium”].

6.2.2 Step one: to scan for finding modern and role model organizations

6.2.2.1 Forming an advisory panel

As the first step a panel of recognised experts and experienced people was formed. The objective was to benefit from their knowledge and experiences in identifying and contextualising the practical aspects of the theory in terms of criteria for selecting the candidate organisations, providing the channels for access to selected organisation’s data, as well identifying the right set of people in organisations to contact and involve in research. The Panel was also expected to offer reliable information on Iran’s development programs, state organisations and management matters that could assist in:

Trimming the general frame of the theory;

Specifying the issues and criterions as well as questions and enquiry model for interview;

Identifying and listing of the organisations suitable for case study and determining the approach to conduct the studies.

Searching for candidates for shaping the panel was based on previous experiences and contacts the researcher had in Iran. The initial search led to a set of five experts as stated in

the following. The panel agreed to help in the research and supported the study from the beginning to the end of the data collection.

- Former Head of Energy Research Institute and editor of energy research magazine;
- Head of Iran National Productivity Organisation;
- The chief editor of economic development research journal (seasonal)
- Advisor to implementation of three national information systems;
- A former provincial governor and then Mayor of second largest city (Mashad)

6.2.2.2 The role the panel in the process of case studies

As was explained in the formation and structure of the panel, it constituted of a number of high profile individuals who contributed in the process of defining and customizing the criteria, extracted from theories and conceptual model in the context of Iran suggested by researcher. Such criteria were then applied with consultation from the panel to identify the cases for being role model, modern and institutionalized organizations. In a comparative study and judgment of the candidate organizations the panel was set as the point of confirming the candidate organisations' situation with reference to above criteria and the organisations' characteristics in terms of adjustment or deviation away from, or being close or distant from the set criteria.

It is necessary to add that although all the criteria were developed and suggested by the researcher, the adoption or rejection of those initial ideas was based on a discussion with the panel, so none of the criteria were included in the field research without confirmation or where there was an unresolved disagreement among the panel members. For instance some criteria regarding to the diffusion model of selected organization to other organizations, such as liability or jurisdiction of many organizations to discipline other organizations, or being service based, or client oriented of the organizations, were offered by the researcher, but removed from the results after counter-arguments within the panel and disagreements ensued. The panel has initially been set up as a support mechanism not a referee of the research; however its role was present nearly in all steps of the research as adviser, steering committee and final confirmation body.

6.2.2.3 *Criteria, structure and identification of interviewees*

To find a few organisations which could be characterised as: Institutionalised ; Role model; Modern; and fit for implementing e-governance, the case study was about exploring the criteria of such characteristics, setting tools for research, filtering and choosing the best candidate organisations or a group of them as the mediatory means for e-government towards governance for the state.

The unit of study was organisation in which the case study was to explore answers to the following questions within the given context—Iran, as an in-transitions country toward development.

1. Institutionalisation: Which transformation and from which organisational or institutional position an organisation would fall in the track of organisational change?
2. Role model: Which characteristics would define an organisation to be able to keep up sustainability (in its position and influence) and stay or become a role model organisation?
3. Modernisation: Whether the organisation is capable and flexible enough to undergo a shift to a modern paradigm.
4. Adoptability with e-governance: Are the organisation's main mission or issues/problems deal with, compatible with general solutions of e-government?
5. Track of Diffusion: How e-governance implementations in the organisation (if successful) would diffuse or can be diffused to other organisations and the State's body?

In the first step to identify the institutional barriers in general context that all national organisations are working in, the panel suggested for the study to arrange interviews with as many people from a list of fifteen individuals, they indicated, who knew about and also were known with regard to Iran's plan and programming as well as being literate on economic development theories. After contacting the individuals the researcher could find access to only seven people with whom separate interviews was arranged as stated in the following:

M.R.Aref: Head of Budget and Programming organisation, which changed name into Management and Programming organisation, during 1998-2000;

M-Satarifar: Head of Management and Programming organisation, during 2000-2003;

H.R.Shoraka: Head of Management and Programming organisation .during 2003-2005;

A.Meydari: Head of parliament research centre, 1999-2004;

H.Mirzai: A University lecturer at the department of economics of Tabatabaee University in Tehran, Iran;

F.Momeni: A professor of economics at the department of economics of Tabatabaee University in Tehran, Iran and head of "Religion and Economy Association";

A.A.Mazar Yazdi: Senior economist and editor and columnist of Development and Economy quarterly.

The interviews with above people were done through a semi-structured form and the main heading used in the interviews, as advised by the panel included:

1. Which institutional structures or mechanisms have played a role in failure of previous development strategies, policies and programs in Iran?
2. Through which mode or model technology –with focus on ICT— can play a role in changing or removing the factors of failures?
3. Which type or groups of organisations have a better chance to escape from institutional lock-in in the process of institutional building?

The results in response to the above questions are summarised as follows:

Unanimously the effect of oil price fluctuation was the first and most impacting factor on the failure of programmes. This factor has had impact on change of preferences of leaders who had to cope with pressures from social demands that have been reflected on setting long term goals. In particular this effect can be found in expansion of government services and size at the time of high oil prices which make commitments more than government capabilities. This view is consistent with the path dependency theory.

Different rationalities and incoherency in policy planning and policy executing system (projected by two interviewees): In detail inconsistent conceptions among key policy makers, specialists in programming centres and policy executing agencies and departments, frequent shift of power (administration) between right and left hand political groups, and disparity of rationality of political elites and policy executers are pointed to which fits with the relevant theory too.

Complication of running software solutions for the state such as initiating and development of the policies that result to produce and protect social networks, and in the same time, easy and availability of hardware requirements, for instance physical infrastructures: This circumstance led to a type of caricaturising of insufficient harmony in the state programs.

Ethnic tendency exists in the depth of individual's behaviour, against modern behaviour of the society, even in modern activities (three interviewees)

The organisation which can get a proper distance from government and becomes closer to private or public sectors through corporate or entrepreneurial activities or by partnership and cooperation will have better chances to become institutionalised in a sustainable manner (two interviewees).

ICT ministry (because of its natural role in information age), municipalities of five major cities, and two main banks: one governmental – The Bank of Agriculture —and one private - Saman Bank - could be candidate organisations (suggested separately by the respondents).

Following the extracting of the above results which was reflected back to the panel the following headings about institutionalised (or ready to become one) organisation were advised by the panel some of which can be deployed in choosing the candidate organisation as targeted by the study.

Secure from permanent unexpected environmental factor : oil price shocks, unwanted or unexpected aid, unfixed budgetary or financing of government, interventions of government in the way that organization achieves its resources or pricing of the range of goods it provides;

To benefit from an established procedure for appointing and ousting of leaders and key managers of the organization out off central and local elite's interventions;

Consistency among policy makers and policy executers in terms of organisational goals and preferences;

Possibility needs or available experienced of citizen participation in organisation's issues;

Safe distance from market institutions and intervention of market players or stakeholders around major process that the organization runs through.

In the next step, the panel members directly help in finding out the criteria and headings for investigating organisations adaptability with Modernisation. The question to answer was whether the candidate organisation was flexible enough to achieve the required organisational change and shift to a modern paradigm successfully? The researcher's suggestion on this issue was the candidate organisation's capability to adopt and shift to NPM paradigm as a global approach and lived up to that strategy till now. Here it is necessary to state that,

through the first five years program (FYP) of Islamic republic of Iran (1989-1994) and (Taadil) policy, the NPM idea was recognised and declared as a policy to central government and its organisations. This means that the term in that relation is known by majority of managers and staff of the organisations and agencies, and NPM idea has partly been shifted into the given context. Finally, the panel recognised suitability of following criterion as the major signs of modernization in the candidate organization.

Privatisation, as a general trend, not only in supply or non essential issues of the organisation but also in its main technical activities and missions.

Marketisation: adopting market framework - to make major outputs or functions of the organisation tradable- reducing governmental control in pricing for the organisation's outputs.

Deregulation: simplifying and shortening processes, removing or ratifying controls and related procedures (i.e. in giving licenses or supplying or monitoring for confirmatory roles they may have).

Decentralisation: to delegate important/critical decisions from centre to local and line management levels, other affiliate organizations, or separate units.

The panel also- based on the researcher's proposed factors- identified the criteria of a role model organisation as aggregated and shown in the following box.

A widely recognition of the organisation's position- as a leadership or role model- among policy makers, high level authorities, experts and elites, and also stakeholders.

A history or case of imitation of organisation's approach by other similar organisations via introducing changes or reforming their regulations, process and procedures, adjusting their slogan, features and activities as with the role model organisation.

State's intention or any official plan for initiating a prototype organisation for pretesting or setting a role model organisation.

Moreover the panel contributed in terms of diffusion potential of the role model organisation by discussing the researcher's propositions achieving at the following factors:

Living in a Neighbourhood, in terms of location of the role model organisation and its potential followers.

Acting as a cross organization/agency having some sort of legal enforcement authority or mission to apply discipline across other organisations.

Existence of similar organisations in terms of input, output, internal process and workflows, required specialists and staff, structure and hierarchy, technical or technological facilities, and work environment in relation with government, customers/consumers and other stakeholders.

Multi-task organisations with maximum outreach and spread. This means that, more range of organisations could have a closer understanding and experience from the role model organization performances.

The discussion in the panel was directed towards selecting candidate organisations. Some of the panel's members, considering the above described criteria, offered Oil Ministry, Municipality of Tehran, Road and Transportation Ministry, Kish Free Zone and Auto Industry among many candidate organisations for being the role model organisation.

In this step the researcher's experience about Iranian Government Data Network (IGDN), provided some convenient contacts with highly qualified specialists. This was essential in getting update information with regard to the real situation and status of governmental organisations as well as the typical perceptions and expectations from e-government among administrators and higher authorities. For this purpose interviews were arranged with six ICT related experts including Mr N.Jahangard, special representative of President Khatami (2000-2004) in IT sector and leader of TAKFA, the first comprehensive program of Iran in the field of ICT and e-government; two IT managers in Parliament and Presidency offices; three well known consultants from private sector. Our general discussions through an open interview were around the undesirable institutional structure which emerged after executing TAKFA in Iran, and also finding proper candidate organisation by deploying four sectional model offered by Heeks (2001) and enactment technology of Fountain (2001).

The questions included the following as the main ones:

1. Considering falling and fluctuating rank of Iran's e-government (UNPAN 2004-2008), what is the general attitude of government organisation's leaders and policy makers about e-government capability to support the reform of governmental organisations?
2. What are the main reasons for failure of e-government project in Iran? Design, Regulations, Financing, Executing, Adequate time, Change of policymakers or executers?
3. Making reference to the "four section model" of IT in government (Heeks, 2001), which of the governmental organisations/agencies would have a better chance to pass following steps. "IT ignorance and disjointing" (First); "imitation and use of computer as a mode (second); incorporation with computing and IT solutions (third); and "organisational reform through IT"(Forth).
4. Which cross agencies (Fountain, 2001) to some extent could impose their information management style to other governmental organisations or make others obliged to follow their principals or participate with them in a chain?

6.2.2.4 Many results

There is a generally optimistic attitude towards e-government capability among managers and staff, in particular within those organisations which their major business adjusts with the first (information) and second (transaction) steps of e-government maturity model of (UNPAN, 2004).

The term e-government at that stage seemed to be assumed as an opportunity for IT managers and budgetary offices of government body to be absorbed in the last minutes, making it not what can be counted as a long term strategic plan and program.

Lack of any master plans, and misalignment and resulting challenges and conflicts between the Ministry of ICT and three other high councils about responsibility for leading and policing of ICT and e-government leading to overlaps, redundant and parallel works is a common view. Coming to this there is no similar optimistic attitude among IT activists in public and private sectors.

Redesigning and reengineering of working processes through ICT is an ongoing project throughout majority of governmental organisations. However change in the structure of these organisations in general requires new rule and regulation which can only happen in exceptional cases and in action none of them seem to stand a great chance to achieve the result expected.

A considerable possibility is attached to interrupting and scrapping the e-government projects when it comes to showing its role in increasing transparency at all levels of the organisations.

Police Force, Road and Transportation Ministry, The organisation for Power Generation (electricity), Iran Khodro the largest Iranian auto manufacturer, and Social Security Organisation were pointed to by the participants for possibility of passing the two steps of “four sectional model” of Heeks. Municipality of Tehran, the Trade Ministry and the Ministry for Economics, the Management and Programming Organisation were referred to in terms of cross organisations with a reputation for imposing their principal to others which could be candidates for being role model organisations.

The results from this stage were presented to the panel and the following criteria were identified and agreed concerning the candidate organisation.

Incorporating Heeks and Fountain theories and ideas;
Incorporation of THIRD step of maturity model(UNPAN, 2004);
Existence of an External pressure from global scene as a paradigm or standard;
linkage between organisation survival and integrating with global rule of games;
Copping a general inefficiency of the organization with a consensus among policy makers and policy executers regarding to IT as a plausible solution.

According to the experts’ views collated in the last two exploratory sessions of the research the following seventeen organisations found as potential candidates for our study. Some of these organisations are nominated from the view point of being a potential role model and some of them are found suitable due to their adjustable structure and situation and attitude with regard to institutionalisation criteria, and some due to be well-known in terms of IT infiltration or modernisation reform.

1. Ministry of ICT : <http://www.ict.gov.ir>
2. Mega cities Municipalities: <http://shoraha.org.ir>
3. Provinces of Esfahan: <http://www.ostan-es.ir/>
4. Iran Agriculture Bank :<http://www.agri-bank.com>
5. Saman Bank: <http://www.sb24.com>
6. Kish Free Zone : <http://www.kish.ir>

7. National Iranian Oil Company: <http://www.nioc.ir>
8. Municipality of Tehran: <http://www.tehran.ir>
9. Ministry of Road and & Transportation :<http://www.mrt.ir>
10. Automotive Industry include:(Iran khodro <http://www.ikco.com/Fa/Default.aspx>, and Saipa: <http://www.saipacorp.com/en/>)
11. Police Force: <http://www.police.ir>
12. Ministry of energy <http://www.moe.org.ir>
13. Iran Khodro : <http://finance.ikco.com/stock/default.aspx>
14. Social Security Organisation: <http://www2.refah.gov.ir>
15. Ministry of Commerce: <http://www.moc.gov.ir>
16. Iran National Tax Administration: <http://www.intamedia.ir>
17. Management and Planning Organisation of Iran: <http://tec.mporg.ir/>

In relation with the criteria offered in the conceptual model, the candidate organizations, which were chosen and listed through some initial interviews and advice from the panel, were examined and assessed, and consequently filtered by means of judgment from the advisory panel. Table 6.1, below, presents: 1) initial action to institutional change” departing from general context and practicing a type of independence from state’s interventions”; 2) being role model in one way or another in the past history of the organization; 3) setting up grounds or implementing NPM; 4) an estimation of state of the candidate organization in terms of being role model for e-Governance; and 5) having a cross organizations status or interconnection with a considerable number of governmental organizations.

Criteria Candidates	Institutionalization organizational changes	Role Model	Setting NPM /Modernization	Adoptability with e-Governance	Diffusion position
Ministry of ICT	—	—	√	√	√
Mega cities Municipalities	*	*	*	*	*
Province of Esfahan	*	*	*	*	*
Iranian Agriculture Bank	√	—	√	√	—
Saman Bank	√	—	√	√	—

Kish Free Zone	√	—	√	√	—
National Iranian Oil Company	?	√	√	—	√
Municipality of Tehran	√	√	√	√	?
Ministry of Road & Transportation	?	√	√	√	√
Automotive Industry	**	**	**	**	**
Police Force	—	—	√	√	—
Ministry of Energy	√	—	√	√	—
Iran Khodro	√	?	√	√	?
Social security organization	—	—	√	√	—
Ministry of commerce	—	—	—	√	√
Iran National Tax Administration	—	—	—	√	√
Management and planning organization	—	—	√	√	—

(√) the criterion exists, (-) Lack of proposed criterion, (?) Unknown

(*) Municipality of Tehran (MoT) could represent both of a Mega city and a semi-local government so either Mega cities and Isfahan Province have deleted from detailed analyzing.

(**) Iran Khodro could be the major delegate for Iran Autonomy Industry, so analyzing of this industry would justify through study of Iran Khodro

Table 6.1 Assessment and filtration of candidate organizations; round one

Without going through details of each of the listed organisations and in order to save time we applied some general measures to do a first round filtering of the candidates. To do this filtering those which could not be attached to a reasonable number of the mentioned criterions; similar cases in terms of sectors or activities; or those having limited or chance of diffusing their achievements to other public organisations for public participation were

truncated and the result first filtering of the list was carried out in discussion within the panel. This practice left only six organisations in the list which will be referred to later.

Some of the reasons behind this filtering process are explained in the following:

Although Iran mega cities and the Municipality of Tehran have been offered by different propositions, the Municipality of Tehran (MoT) could both represent a Mega city and be considered as a role model organisation. So the Mega cities option was removed. With a similar logic Isfahan Province (Governance body) as a semi-local government could be represented in terms of characteristics by MoT as another type of local government. In this line also, Iran Khodro as the main unit of Auto industry could be represent the industry and hence we deleted the general auto industry case.

Both Iran Agriculture Bank and Saman Bank (as the private one) although could become a symbol of efficiency for other governmental or private banks in terms of IT reform, but there is serious limitation in terms of influence and hence diffusion due to the nature of banking activities and their financial structure separating them from most of public organisations. This was the base of reasoning for omitting these two organisations. Police Force and Power Generation Company (part of the energy Ministry) for similar reasons were removed. For instance broadcast of experience from Police, an organisation with special staffing and supervision models with particular training regimes and concrete hierarchical structure had limited proxy with civil organisation and could not be in a good diffusing position. In the case of Power Generation Company/Ministry, again its specific and almost isolated position – lack of a considerably vast neighbourhood, or being a cross-agency or multitask organisation —fanned the reasons of this omitting.

During the course of this research the “Social Security Organisation” was joined to the Ministry of Welfare and Social Security, also the “Management and programming organisation” was dissolved and devolved through two steps into Provincial Governance bodies. In a second step many of central units of this organisation were merged in the Presidency institution. So these two organisations, despite having some considerable strength and suitability in terms of acting as cross agency and having acceptable IT infrastructure, had changed position and tended to grow dependence on the Central government in one hand and the inherent instability in the organisation because of this change made the organisation not to fit the criteria.

The Ministry of Commerce as an Economy related inclusive body could be counted as one of the best candidates for playing a cross agency role, however rigidity inherent in its organisation, working on a set and controlled budgetary regime and strong regulations and rules had not allowed the organisation to develop the information systems they needed for their primary functions. For the next case we discuss the Iran national Tax Administration, which despite having a history of 40 years of establishing Computing Centre still have yet to automate its processes or implementing the VAT system. In the same line the Ministry of Commerce despite a special article (26) in the second FYP (1989) to develop a data centre for recording and integrating state commercial activities has not succeeded to execute this after twenty years.

6.3 Step Two

6.3.1 “First round”: filtering candidate organisations

The last filtering left us with only six organisations for closer and more in-depth study. These remaining organisations had the minimum match with the set criteria and were representing various sectors of the economy as well governmental organisations. In this section an in-depth analysis of these candidates will be presented to apply the second filtering stage.

National Iranian Oil Company (NIOC): It is one of the oldest Iranian modern organisations which came to birth from the Anglo-Iranian oil company in about 100 years ago. Through a Nationalisation movement for the company and right for extraction and export of Oil in 1951 the company has experienced working with international consortiums and hence having the chance to learn from working in this modern field and becomes the third top oil company in the world with a more than four million daily barrel reserve and 43000 employee (Energy Intelligence Research, 2007). By approaching Iran, to the Organization of the Petroleum Exporting Countries OPEC in (1949), managers and experts of this organisation could learn through playing a role in the international market and transferring their experience to other organisations which were involve in petrochemical and construction industries as well as international trade. As the most important sector which provides the main source of government’s income, for its plans and policies. have a prerogative to access to oil income away from intervention of other governmental organisations. NIOC and oil department also protects its company-oriented structure-the legacy remains from Anglo-Iranian Company the

origin of NIOC. As the result the NIOC as a role model, modern and independent organisation could be one of the strong candidates within our cases.

ICT Ministry: as the major player in providing ICT and infrastructure of e-government, with an outstanding diffusive position across the state organizations had too much advantages to neglect as a candidate organization. This organization facing with a global experiment– a natural monopoly that experienced privatization successfully- maintains many kinds of its early position-initiating standards and arbitrating between political and economical institutions- could play game as a cross and modern organization. But two contrasting observations should be referred to in here to present status and role of this sector. First is structure and distribution of population: a young-median age 26.3 - and urbanised population- 68% of total population are living in the urban area with a progressive demand for ICT services. Second, respond of ICT address to this demand: 24.8 million land line in use, 43 million mobile (27th) and 23 million internet users (17th in the world) (WB, 2008). These circumstances offer to the policy makers an opportunity to see this sector as a relative advantage and alternative resource for Oil. Taking advantage of this particular opportunity could not only link economic development activities but could bring governance and modernisation to the state. Hence we consider this sector in list of important candidates.

Kish Free Industrial and Trade Zone Organisation: This case was also considered as another candidate to remain for the study. The reasons include its particular structure in terms of financial independence stemming from incomes from licensing, customs and selling or renting the lands. The organisation is benefiting from a very modern regulatory model which in general has been copied from the most successful free zones regulations in the globe. This model has some considerable features including losing old institutions and social resistance, as the majority of habitant come from the mainland; a highly supported jurisdiction enabling the organisation govern all local units of other departments under one leadership – simple integration and a cross organization-; cutting the state budget and operating a market-oriented mechanism to cover the organization costs. This model prohibits intervention in private sector activities making it even more lenient comparing with Dubai, its closest competitor. An even free sphere for commercial activities could be provided in this area through devolution, decentralisation and federalist approach in a controllable sense. So this organisation has the chance to play as a role model and provide prototype for e-governance.

Road and Transportation sector: This organisation can be characterised with a number of unique specifications. It can first be a role model for the construction sector and Tourism

industry which have bilateral links together. It has a pervasive existence throughout of the country, and has the advantage of centralisation of policing of the total process in hand of one organisation-cross organization-while its main units of work independently in a decentralised manner. Having activities similar to many private companies for instance in air or rail road transportation organisations. A number of functions of this sector could be legally out sourced and are marketisable. This organisation has experienced as a role model organisation during the office of A. Khorram as the Minister (2000-2003). Seemingly this organisation has the appropriate criteria for being a case.

Automotive Industry represented by Iran Khodro Company: As a non-governmental agency nor a public company this company can be considered as a new form of governance -a cooperation between government, market and individual customers- also working with Multi National Companies (MNCs) involved in technology and knowledge (including organisational technology) transfer in forming the industry. The company could be an important player as a role model for majority of large industries which in general the government in Iran is involved with them.

Municipality of Tehran: Experiencing as a role model organisation for more than 10 years when Karbaschi was in power as the Meyer (1985-1996).In this organization also a national experience of governance has occurred: a two degree election of local authorities-council members who in place select Mayors in urban areas has operated from 1998. On the side the fact that nearly all departments have their headquarters in the Capital city also that five mega cities as home to almost one third of Iranian population directly and another one third who live in their neighbourhood cities - will provide a proper condition for this candidate to be one of the major cases to study.

6.3.2 An entrance to second round: institutional matters of the candidate cases

To understand institutional circumstances that the organizations –cases-are embedded in, the researcher needed to have a look at the main institutional structures and mechanisms affected behaviour and constrains that the candidate organizations are faced. At least two major institutional structures were identified to play in this ground: Iran as a special under developing country, and as an oil-led economy. In this part-details of these two characteristics will be explained.

6.3.2.1 *Iran Institutional Map*

With institutional map this part refers to those elements that have been framed upon non-technological capital, dependent path, historical and enduring features which regardless of political regimes or the ruling government, are determined and shape policymakers' choices and their constraints. These factors are not of occasional or short term policy type nor come from policy makers' desires and slogans.

For instance in the case of Iran the raw material driven economy has coped with import dependent industry, primitive and self consuming agriculture, chronic and progressive trend of unemployment, unusual structure of the population, ethical disparities, neighbourhood with some core locations of powers conflicts, religious and language diversity, and locating in one of the most important world's waterways- Persian Gulf- which is accounted as the survival jugular vein of the industrialised world (oil). The country has a long history of being an ancient empire itself with counter experience of historical foreign aggression, from Russia and Britain in the last century, Ottoman empire, continuous challenges with other regional and international powers (US and Iraq cases), and also locating in Middle East and being close to former Soviet Union neighbourhood. A historical challenge for local elites has been the discourse of how tradition and modernism should be optimised. Also to form political culture and shape attitudes towards foreigners also the formula and procedures for achieving social consensus, cooperation and utilising coercion have yet to be settled among thinkers and activists. Repetitive social disorders and revolutions against internal dictatorships and foreign colonialism have characterised Iranian eco-political condition in which no development strategy would stand a chance of success. These issues have directly or indirectly driven the Iranian economy to stay as a middle class, in-transition and non-modernised economy (UNPAN, 2004).

This unsatisfied condition has occurred while Iran has examined a range of development strategies. From tendency to programming as the main missing ring of the development chain (Adelman, 1999) by assigning a special organisation and employing special programmers (Amozgar, 2001) to combining planning and budgeting in a powerful organisation to ensure that national programming will meet its targets; and from Import Substitution Strategy to Export Driven one; from state-led economy during the war with Iraq to structural adjustments and Washingtonian consensus strategy namely Taadil; and finally from Good Governance policy to now with a mix but unclear development policy are all traceable in Iran.

Answering to the question that why development and sustainable growth have not occurred in Iran, may require to a quick flash back to this discipline first. Development in nature is not a firm and general fate for all countries which can happen through a historical determinism but it is only possible through a social transformation (stiglitz, 2000, 2002), Sen (1999), Evans (1985, 2005). It is achievable but conditioned to institutional building or realigning it(North, 1993; Evans, 1985). Institutions— rules, beliefs and norms— although do not change in short term and usually work as an inertia for societal stability (Ibid), however it can be modified through organisational change and transforming form one equilibrium to another new one (North, 1993, 2009). Institutional change also is possible but through previous consensus among of policy performers (R.D. Connor and S.R. Dovers, 2002).

Brining “New institutionalism” in the core of development discipline as stated by Evans (2005), Adelman (1999) and Toey (2003), also accepting the interlinks between economic development and political development (North.et.al. 2009); e-government and good governance in the name of “Organisational Technology” (Hoof and Stiglitz, 2001) could play role for social transformation (Stiglitz, 2000). They could facilitate and frame social free discussion and capacity building(Sen, 1999); and assist government to confident steering and coordinate better governance among political and economic institutions (Peters, 2005).

To predict that how much chance exists for development and good governance in Iran, with the above pictures and assumptions, we need another theoretical lens. The lens that show effects of oil-led economy, distributive and rentier government upon national institutions.

6.3.2.2 Institutional characteristics of Oil-led countries

Iran with 136.15 billion barrels of proven crude oil reserves and 28,080 billion cum of proven natural gas reserves which would generate 82.90 billion USD exports from crude oil production and natural gas (www.opec.org/aboutus/member%20countries/iran.htm) is accounted as one of petro-exporter and oil-led country.

Karl (2004) characterises these types of countries with “... slower than expected growth, barriers to economic diversification, poor social welfare indicators, and high levels of poverty, inequality, and unemployment... characterized by corruption poor governance... culture of rent seeking, often devastating economic, health, and environmental consequences at the local level, and high incidences of conflict and war...the most economically troubled, the most authoritarian, and the most conflict-ridden in the world... susceptible to policy failure.”

The cause as Karl (2004) here stated is “the weakness of pre-existing institutions ..., their frequently authoritarian character, and the ease with which they can be transformed by an overwhelmingly powerful export sector... produce a rentier state— one that lives from the profits of oil rather than from the extraction of a surplus from its own population... economic influence and political power are especially concentrated, the lines between public and private are very blurred, and rent seeking as a wealth creation strategy is rampant. Rentier states are notoriously inefficient because productive activity suffers and self-reinforcing “vicious” development cycles can set in. Together, all of these factors slow growth, raise powerful barriers to the diversification away from petroleum dependence, and produce the skewed development patterns described by the resource curse.”

Considering modern states, Karl (2004) shows linkage between permanent resources through a fiscal policy which is rooted in a fair and predictable environment. In the result to evaluate any organization characteristics in context of Iran, we need to consider why and how much an organization could depart from rent seeking and rent distributing process, how it could be produce and mange an stable fiscal mechanism, and how it can be alive without dependent from state resources.

6.3.3 Second round: Filtering of the candidate organizations according to the quality of Institutional alignment for organizational change

6.3.3.1 Introduction

To check institutional alignment around NPM in this filtration, the panel advised three following criterions and directions:

- 1) State policy makers consensus regarding the reform or new direction of the organisation;
- 2) Aggregation of experts and elites and key players inside and outside of the organisations with stakeholders of the field;
- 3) Aggregation of at least one of, above coalitions with global idea about organisational change. These changes in case of Iran may be framed through a Five Years Plans or 20 years national vision establishment of laws, or via constitutional law.

The change could be in the domain of organisational ownership, transforming from one institute to another one such as selling or shifting of organisation ownership from government

6.3.3.2 Interviews' structure and headings

The first step in collecting data was to arrange at least two interviews at each case organisation to verify the claims about adjustment of the approach to NPM –implemented through the set policy of Taadil (Rationalisation) initiated in Iran- with organisational behaviour. The interviews will be in the form semi-structured and aims mainly to find answer to the question of :whether the concerned organisation has been successful to become a modern organisation or not. In case of a negative answer there will not be sufficient reasons left to continue with the case and this group of organisations will be considered as unsuitable and the work on them will be terminated. In case of a positive answer then it will be necessary to assess the quality and level of consensus and the role of policy makers and experts in this regard. Finally, if both criteria could be attributed to the organisation the linkage between output of the organisation and outcome of the state will be further studied. So three main questions that will guide the research in this stage will include:

Q (2): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy.

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

Q (3): How output of the considered organisation can relate with outcome of the state?

6.3.3.3 Interviewees

The people selected for the purpose of interview in this stage were sought and spotted from the six remaining organisations in which the panel members gave advice and provided some contacts. The list of interviewees of the six organisations is as follows:

1. Former Mayor of Tehran. He is also is the ex-governor of Isfahan province, one of the main provinces of Iran;
2. Former deputy of Tehran Mayor and chief editor of Hamshahri, a groundbreaking Iranian newspaper;
3. Deputy of Tehran Mayor who is head of the municipality research centre at the moment;
4. Former Minister of road and transportation who was the ex-governor of three provinces as well as the deputy to the Housing and Civic Ministry;
5. The operational manager of GDN (Government Data Network);

6. Representative of Iran National Tax Administration who was active in the research programme on fiscal system reforms;
7. Former minister (secretary of the state) for Oil;
8. Deputy of human resource of Oil Ministry;
9. General assistant to the head of Kish Free Zone;
10. Former Minister (secretary of the state) for ICT;
11. Deputy of the ICT ministry and head of TAKFA a national program for ICT development in Iran;
12. Former secretary of the state for Industries.
13. Secretary of aviation community

6.3.4 Further in-depth study of selected six cases

The case studies (interviews) were done in parallel as much as possible due to the time limit to spend away from the university. The order of presenting the results is based on two groups, the first which during a mid way analysis were decided to abandon, and the second group which were looked at in a more depth and details. Other complementary analyses of the cases for extended criteria will be explained as the third step of the research.

6.3.4.1 Case One: National Iranian Oil Company NIOC and Oil Ministry

National Petroleum Company: The NIOC is a continuously progressive but old structured organisation with roots in the Anglo-Iranian nationalised oil company and long experience of cooperation at international levels in complex consortiums and a good chance of playing role in international markets and trade. This role model organisation has played a major role in forming and framing the political and economical structure of the country. Former Minister of Oil and one of deputies to the ministry (at the time of study) participated in the study and answered to researcher's questions about history of modernisation in a semi structured interviews. The questions and responses are discussed in the following.

Q (1): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy.

Responding to the first question, former Minister of Oil believes: some units under governance of this ministry such as the Petro-Chemical company could become modernised while some other organisations such as NIOC are generally disappointing. The Petro-chemical company that originally was constructed in a new atmosphere after Iran-Iraq war

and in the time of Tadil policy, according to the minister and through a consensus among policy makers formed and structured as a semi-private organisation. The company through an international collaborative contract with foreign partners namely “by-back”, was an experience of a hybrid type of company. The foreign partner in that contract was to involve in the building of the factories, and operations, and benefit in return from the production in medium term after it transferred the ownership and management of the establishments to her domestic partner. Absence of government’s direct intervention to finance this new industry led to a natural expectation for the government to avoid intervention in the production and pricing process. This also led to formation of a sort of independent organisation which in long term may have the chance to be independent and form a new field on its own. This part of the oil industry could therefore meet some of the modern criterions.

Nevertheless in other units, for instance in National Iranian Oil Company (NIOC), decentralisation and devolution because of challenges between policy makers and policy executers have remained immature and incomplete.

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

Key decision makers both inside and outside the company, according to the former minister, believe that the current law and regulations encompassing the NIOC should be modified. However their beliefs could have contradicting directions, approaches and expected outcome. The inside managers in comparison with MSCs are inclining more towards freedom and flexibility for managers to manage unstable markets and hence having access to fundamental requirements for this purpose including easier process for employment and hiring of human resource, import of services or developing joint ventures from other companies when they are inevitable. In contrast members of the Parliament would see and compare the NIOC with other governmental companies and put efforts to modify the NIOC establishment law (originally set in 1965) to insert more control on the company and reduce, in their perception, existing inequality among governmental organisations. Policy makers in the centre—from both political wings— as the former minister advocates, would like to reduce a role model and well reputed company to an office or governmental department.

Some managers in the oil industry attribute this challenge to the constitutional law. For instance the oil ministry deputy argued that the problem of undermining the Oil companies

roots in two origins: a) centralisation of government income according to which all government income (including Oil) have to be deposited into the General Treasury and then distributed through centralized budgeting and planning system [Article 50 of the Constitution law], and b) the dominant perspective of policy makers and in particular the parliament who see the oil income as the government pocket with easy access to fund government's projects and plans. The policy makers neglect this reality that survival of this resource essentially depends on in time and sufficient re-investment in the field and efficient handling of the industry.

This oil industry expert/manager believes: some parliament members and many other key policy authorities have no proper attention to the modernisation standards in the Oil industry. They are not familiar with the importance of flexibility and devolution required for competition in this field. They fall in the wrong direction by putting forward the argument that why they should submit decision making in the most important resource of the country (around 80% of government's income) to the disposal of a small team of technocrats. They cannot go for privatisation as it is against the 44th article of the constitutional law, neither can they or want approach marketisation as it may be accounted against the Oil nationalisation social movement of 1953, or that it might lead to inequality in the wealth distribution. Moreover any "Deregulation" may result in more downgrading for NIOC and turn the company to an ordinary department and a disabled/dysfunctional government agent. In terms of decentralisation, the company faces with a problem that originally refers to local authorities and elites' interventions in Oil local administration systems. These intrusions occasionally start from pressure on employment policies, financial aids for local economies or projects, or to influence strikes and walkout of managers. Hence through more devolution or decentralisation through the NIOC, the freedom of action for the regional and local administrators will not improve or increase. Here the paw of ethnical matter can be witnessed.

Moreover the human resource is another main pillar of this industry which as a global norm attracts highly qualified people with high rates of payment. If the policy decision goes to apply the same regulations for employment and payment in the NIOC and Oil Ministry as for other Iranian companies or departments a vacuum of needed resources and migration of brains of the industry is highly likely to happen leading to crises of experts, specialists and management as well .

Also a kind of separation of this industry from other organisations in one hand and a serious gap among different classes and groups of personnel of this field is observable, as stated by the interviewees. This social class gap and dispersion although is not new and roots in the background of the Iran-Anglican Oil Company and consortium era, the enterprise that NIOC can be accounted as its child, has been further widened and deepened after the Islamic revolution. This problem will stand against the needed culture of innovation and creativity diffusion within the organisation as well as toward transferring and learning its knowledge to other organisations. The Ministry's deputy of Human Resources distinguished this problem through three gaps. He claims the gaps can be explored in three layers:

1. Attributing to the historical events lead to the NIOC establishment. Endeavours of NIOC high authorities after the Oil nationalisation in 1956 to meet rapid modernisation resulted to a duality which is still alive. Rapid change in the organisation, while the social context and human resources were not prepared, obliged policy makers to provide a package of facilities and advantages to attract skilful staff and specialists from around the country. Building different campuses, different levels of services, school or hospital for their dependants, long term contract and so on led to shape a type of disparity and polarization between a small part of employee and a big unskilled - local and many temporary workers- in this industry. This gap traces back to the policy of the original Iran-Anglican oil company and consortium that had no tendency to include domestic staff to contribute in technical works. Therefore after the oil nationalisation an immediate vacuum of human resource happened in the company which took a long time and insertion of various incentive plans to resolve by retaining Iranian specialists and encourage them to train others. But this disparity after Islamic revelation turned to a deeper gap which has been fed from class issues and regional conflicts.
2. From an organisational point of view the above duality resulted in the emergence of a condition similar to what called "government in government". It was as if a governmental sector that its regulations, staff and managers came from overseas. A major gap of expectations was presented between senior managers and also specialists with others, who compared themselves with MNCs' employees, and as the white collared staff defining a division with ordinary workers and demanding to be distinguished from them.
3. At key policy and decision makers level; for instance between Oil committee of the Parliament which naturally supports the demands and requests from the oil ministry and tries to secure their status quo, budget, position and privileges of the sector, with other committees

and groups of the parliament. Also between them and the management, specialists and consultants involved in the energy sector or “planning and management” organisations who try to shift the Oil incomes to other infrastructural sectors as well as other policy makers who strive to get more from the stake.

Results summary

The Oil sector due to the existing misaligned position with the increasing global pressures –to become an international company and compete with MNCs- because of some aspects and parts of the state’s policy making system, and because of Iranian constitutional law constraints and lack of consensus among national and organisational decision makers could not shift to the paradigm of modernisation, so this organisation could not be the suitable role model modern organisation we were seeking.

6.3.4.2 Case Two: Ministry of Information and communication technology (ICT)

This organisation is a major player in providing e-government infrastructure and ICT diffusion. ICT ministry which has suffered directly from some major technological changes and their impacts upon vision and mission of this natural monopoly should represent a modern organisation and a case of good governance through initiating standards, arbitrating between political and economical institutes, etc. In this part four interviews were took place with former Minister of ICT and his deputy for development of communication networks, secretary of IT companies union, and secretary of Internet Communication community. The first question such as last case was about modernisation history in this organisation:

Q (1): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy?

This ministry which in a general overview is formed of two large governmental organisations, the Post and the Communication companies in the first wave of Taadil policy in 1994 has through modification of the establishment laws of the two mentioned companies developed to 24 provincial companies, extended to 28 later, with similar structure and semi-autonomous jurisdictions across the country. This can be referred to as a decentralisation experience and devolution strategy. The ICT ministry during the second Five Year Plan – after growing many challenges in privatisation policies – showed the tendency for forming a

special company for managing Internet and mobile phones. With change of the government (1996) and promises by reformist winner of the election to keep the Taadil policy- while the parliament was in the control of rightists- a consensus on privatisation of those services among policy makers/executor has been demonstrated. Also outsourcing of Providing Internet Services to the private sector and opening the door for international tendering for operating Mobile networks, while the government and parliament were in the hands of leftists, and now that both policy maker institutes are in the control of conservatives show that a consensus exists about major role of market player in this field.

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

Despite the consensus among policy makers from outside the organisation, there is a kind of suspicious view among military and intelligent services about privatisation of ICT and giving room to foreigners to play a role in this field in the country. The international tendering hence met challenges several times and after the declaration of a new interpretation of 44th article of the constitutional law which authorised delegation of part of government's share in the Communication Company, a company affiliated to some part of state's military services could, in an argued tendering process win and buy the majority of the shares. This signalled a quite unclear message about privatisation of this sector.

One of the specialists also criticized the readiness of domestic ICT organisations in approaching the Information Society and argued that: the ICT ministry at the level of managers was not aware of ICT and Internet and their importance for a long while. They were undertaking to provide the policies and operations to expand the industry through a central policy not embracing what this new technology could provide for the sector. To show this un-readiness, he claimed that adopting Internet in Iran, which later led to the registration of the domain of ".ir", was originally initiated by the Theoretical Physic Research Centre (TPRC) of Iran. While ICT ministry as the main responsible department was behind TPRC, and then when this organization was involved to ratify some regulations to extend its monopoly to Internet, many private and governmental organisations could bypassing the ICT ministry through wireless Internet and technology: satellite. The ministry gradually became aware and prepared to overtake the role of leading, regulating and policing domestic use of Internet. Further in the process the ministry could legally and practically establish a

specialised organisation that monopolised Internet services. This strategy however did not find much success for a while and both public and private sectors were trying to access and use Internet independently.

With the change of government and residing of the reformist administration (of Khatami) the ICT ministry (which had the Postal services in it) went through dramatic changes in terms of privatisation and decentralisation. Sole control and management of national cyber space, monitoring and policing Internet use, investment and development of Internet and mobile infrastructure through Joint venture with foreign and domestic companies, and establishment of “highest board of Information dissemination” -Shoraye ali etelaat resani- from a panel of 14 Ministers under president deputies, headed by the president himself or the vice president, were some implications of these evolutions.

In a first glance this organisation due to having reasonable reputation for modernisation, supported by new laws and regulations as well as obtaining the responsibility and authority to rule and coordinate all activities in this field could be the first and the best candidate for being a role model or leadership of e-government in the state. Being aware of failure of e-government projects in Iran , one of the former deputies of ICT ministry commented that: “the width and depth of activities undertaken in ICT field having strong support from the reformist president team as well as positive feedback from educated parts of society (elites) and also employment contribution of this technology to the economy, have put the state in a point of no-return”. Nonetheless he believes due to presence of a considerable body of traditionalist in core parts of the political system, achieving e-governance targets through these organisation have not enough chance to experience duration and sustainability.

About consensus between inside specialists located in research centre of ICT department and other key decision makers, leaders of IT and CT communities’ conviction is: although there is a positive relationships between IT managers and specialists in communication company are ongoing however fluctuation of governments preferences which originally affected from political atmosphere are against long term investment of private sector in this domain. Lack of required conditions for the private sector to accept the risk of big investments in this field resulted in weakness of this sector to build trust with governmental organisations even if being decisive in outsourcing their ICT jobs. This vicious cycle can continue. On one hand private sector because of fluctuation of government behaviour could not be trusted, and on the another hand delivering sensitive performance to companies whose competence is not tested, is not rational. The public-private partnership in this field could be far from reality yet.

to market players, i.e. privatisation of natural monopolies or selling of government shares to public or foreign investors. The other route can be change of structure and organisation dependency to government, i.e. decentralisation or shift of decision making in the area of policy making and policy executing from central government or parliament to local and public decision makers, or bringing stakeholder in the play ground.

Also it could be about change of the role of the organisation or governance model of organisation, for instance from policy executing by own staff to policy steering by devolution and outsourcing. Alteration of organisation's business model from budget consumption to self financing or multi resource organisation. Signs or reasons for formation of a consensus about change within an organisation can be summarised as:

Authorisation of the organisational change by both wings of the country. For instance while:

- The right hand has the government in its control but majority of the parliament is in the control of the left hands,
- The left hand has the control of the government but the majority of parliament is in the hand of right wing.

Coalition of key organisational players and outside stakeholders about the change in organisation while:

- Leaders of the organisation –for instance ministers or manager director of the organisation – and major staff and experts of the organisation and the related community or professional bodies collectively agree to the change.
- United views from experts/elites of inside and outside of the organisation resulting from a change of technology they have been involved with. This could include emergence of a global problem and/or solution for the change in the organisation in terms of organisational process or outcomes.

Linkage between output and input of the organisation with the general problems. For instance lack of budget or change of government preference to lead to authorising self financing of an organisation. Through this criterion sustainability of the organisation to keep its independence and modernisation, or reproduction of institutionalisation of the organisational change will be addressed.

Results Summary

ICT sector although could meet some modern criteria, however lack of a clear consensus among policy makers in particular those are active in military and intelligent services about private sector's role in this field resulted in an instability in the business environment corresponding with a lack of long term investment. This results in having no trustable companies to supply government demands leading to a vicious cycle. The ICT sector, therefore, because of lacking of consensus about privatisation in action cannot play an independent role or to be the role model organisation for diffusion of e-government. This conclusion was agreed by the panel.

6.3.4.3 Case three: Kish Free Zone organisation KFZ

An extra ordinary structure in terms of independent financial resource, very modern regulations, lack of old institutions and social resistance together with a highly supported jurisdiction of this organisation, governing all local units of other governmental departments (under the head of the organisation), and prohibiting intervention in private sector in, were some main characteristics of this organisation. In this part two interviews with former head of the Kish Free Zone organisation and his general assistant was conducted to answer the researcher's questions.

Q (1): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy?

According to (25)Article of the first Five Year Plan of Iran, the government was ordered to establish three Free Trade Zones to facilitate and support FDI trend , facilitate financial activities through special governmental services for investors, push the commercial activities up and encourage tourism by providing more free area of business and trade. Facilitations such as tax and tariff exemptions, freedom of exchange of foreign currency and import or export advantages indeed could address an exit way for the problem of the foreign currency reductions and practice of economic freedom (open market) as well as administrative devolution. Despite this policy and its offerings in terms of proper regulations and also re-institutionalisation, the Kish Free Zone, which has had a rapid and considerable level of progress and development in implementing the policy, has not exactly achieved the objectives.

Considering the criteria, KFZ as a new organisation had embraced all criteria for being a modern organisation. For instance easy, low or free of control of individuals transportation (visa free zone) either could be an attraction for tourists also facilitate employment of highly skilled people who may required by enterprises and factories. Also easy and cheap tariff for export and re-export of goods and services, non control area of central bank on foreign currency in terms of transferring, pricing and exchange, a permitted zone for foreigner to buy property and register company without usual limitations apply in the main land, together characterise KFZ as a modern organisation in terms of deregulation or easy regulation.

Limited authority of the KFZ organisation to intervene in business's affairs on one hand and legal obligations for other governmental organisation to deliver their services based on market price on another hand demonstrate a suitable picture of economic freedom, marketisation and privatisation in this island and organisation.

As the result KFZ can be accounted as a modern organisation so the next question should be answered.

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

Recognising independence of KFZ in the rightist government suggested in the draft of first FYP of Iran, which was confirmed by the left hand parliament and followed then by implementation of a special law in the rightist parliament demonstrate a consensus among policy makers about the free zones. However the small size of this organisation on one hand and short term employment contract system in this organisation on the other, will limit the room to talk about inter organisation expertise. Nonetheless this consensus was not sufficient for the KFZ to meet its targets. The reason as former head of KFZ advocated refers firstly to inattention of policy makers to prerequisite for a free zone in particular when other competing free zones in the same region offer more advantages. For instance unprepared or expensive infrastructural services are a disadvantage for investors who in similar free zones such as Dubai could benefit from provided infrastructural services at a more reasonable cost. This inequality cannot be sorted out by independency or privatisation because investment in this area such as ports, air ports, power and water supply in general is provided with governmental investment. Such investments fall in the category of long term returning investment which is against the nature of the free zone and expectations by investors. This

problem of investment in infrastructure has driven the KFZ managers to pay extra charges in some case for licensing the activities and many cases giving somehow unwise advantages to some activities in island. This matter pushes domestic rent seekers to experience not useful and short terms business and make the Island as a gate for trafficking goods to the main land without paying costume duties.

He secondly urged on non attainment of objectives and resorting to unplanned and unwanted policies leading to a disparity and somehow dysfunctional position for the free zone towards the mainland economy. In the absence of Industrial investment the growth in trade and tourism has not been and perhaps cannot be considered as a stable resource for the KFZ authorities. Pressures on the domestic tourism because of cultural limitations and lack of domestic production lead to an imbalanced trade system in the view of national macro economy.

To this extent it was deemed necessary to ask the third question of the research in order to make sure of the organisation's suitability.

Q (3): How output of the considered organisation can relate with outcome of the state?

Although extra legal facilitations of this free zone and modern organisation in comparison with the mainland can be accounted as an advantage and be a point for initiation of autonomous institutionalisations, however comparison between this facilitations in KFZ and other free zones, also trade off between those legal and managerial advantages with very cheap and subsidised infrastructural services lead to a package of disadvantages for investors and rent seekers so business model of this policy has suffered criticizing and inefficiency.

But some policy makers believes KFZ although could not meet its economic targets however as an unwanted or unplanned outcome could attract high class individuals who are willing to pay for first class services in holidays programs. According to this group of policy makers, as deputy of the KFZ illustrated, more than 50000 journey into Island in holiday seasons while cost for these trips often is much more than similar foreign offers, show that outcome of government could link with Kish Island usual output as an internal tourist zone. They argue that industrial or trade purposes which were emphasised in the Free Zone law includes somehow overload targets which their prerequisites have not been provided. In contrast another group of policy makers who represent a conservative stance about the Islamic cultural values have criticised the dissemination of consumption and capitalist culture in the

free zones and in general believe that such zones do neither play a constructive role for economic purposes nor for cultural outcomes. With such inconsistency among policy makers about positive implementation of free zones, the central government policy has suffered alterations. For instance during the last four years(2004-2008) when government and parliament were in the control of conservatives the head of KFZ organisation has changed three time- an average of 16 months in office. This average in the term of reformist governments (last 16 years) was about 64 months.

Results Summary

Considering the achievements of the model in terms of lacking some modern features, or the absence of consensus about form and content of the KFZ as discussed above lead us to this conclusion that the case cannot be a proper candidate for prototyping of e-government and e-governance and disseminating to the country.

6.3.4.4 Discussion; a mid way decision on cases suitability

The review of the first three cases made it possible for the researcher to achieve to this understanding that the cases are not going to be suitable organisations to undertake the responsibility for taking the role for implementing e-government and e-governance in the country. This idea was discussed in the panel and was supported by the team.

The following table summarises the situation with the three cases in terms of three general factors which as is shown rejects the possibility of these cases to be considered as suitable candidates for the e-governance/e-government implementation Iran.

Criterion Organization	Modern	Consensus	Linkage output- outcome
NIOC	X	X	NS
ICT	✓	X	NS
FZK	✓	✓	X

NIOC=National Iranian Oil Company NIOC and Oil Ministry;

ICT=Ministry of Information and communication technology;

FZK=Kish Free Zone organisation

Negative score =X; positive score=✓; Not studied= NS

Table 6.2: A summary of the first three cases

6.3.4.5 Case Four: Ministry of Road and Transportation RT

Road and Transportation sector as a role model for construction sector and Tourism industry due its extensive presence across the country could be an important case. Centralisation in policy making and decentralisation in line activities have been studied in this organisation remarkably.

Q (1): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy?

According to former Minister of RT although at least two major units of this sector, Aviation and Rail road, have experienced some criteria of modernisation such as privatisation or working in decentralised modes, however this sector could not benefit from the Taadil policy to touch other modernisation criterions. Constitutional law (Article 44) constraints privatisation and marketisation of this sector and emphasises on fully insertion of control for the government in this sector. The Government legally was obliged to keep its control over the transportation infrastructure and services and pricing policies, and hence tried to maintain a balance across the sectors for their cost by controlling petrol prices and governmental services which are affected by Oil price. This leads to a complex and non transparent business model for the sector and may drive it to bankruptcy. Government intervention through pricing does not give the way to marketisation, and even if price of RT services could balance in a supply and demand mechanism, nonetheless, absence of private sector or other competitors cannot permitted, hence this type of marketisation could not lead to better performance and productivity as the aim of NPM. So according to the decree of the third FYP (2000-2005) which through a market oriented approach persuaded and ordered all governmental sectors to do privatisation, the Taadil policy could not be continued progressively in this sector. But after this national program the RTM could achieve some goals of modernisation successfully, while A-Khoram was in office as the Minister of RT (2001-2004). Khorram expressed his view on decentralisation and deregulation as:

In two rounds and during less than six months I could deliver more than 90% of the Minister's and ministry's authority to the local managers or directors of RT agencies. By transfer of this volume of the works, I found the opportunity to involve in negotiation with key specialists and decision makers in central government to provide extra resources for financing some postponed projects or to increase speed of preferred ones. I also by changing

the policy of own administrating of RT projects to transfer the jobs to private contractors, provided opportunity for privatisation. Pushing them to work more I deployed a group of creditable experts such as former ministers by offering them maximum possible authority to represent the Minister in supervising the projects.

According to Khorram his efforts to bring foreign companies for investment in aviation industry could not meet success. For instance open day of main international airport (Imam Khomeini Airport) -which was partly subcontracted to a foreign investors- its management was crippled by the opposition of army services who occupied the airport on the basis of security reasons they had.

In October 2004 Mr Khorrm was impeached by the parliament and could not follow the modernisation goals.

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

According to the 44th article of the Constitutional Law (1998): “The economy of the Islamic Republic of Iran is to consist of three sectors: state, cooperative, and private,...aviation, shipping, roads, railroads and the like; ... will be publicly owned and administered by the State”. Interestingly, the RT sector in the last regime which had followed capitalist policies also was managed through a state-owned sector. But the problem could not be sorted out by withdrawal of the government from the equation. Nature of the field, as an infrastructural sector which was accounted as a natural monopoly on one hand, extra and huge amount of required budget on another hand, also prohibition of foreign investors to enter this area all together had closed any other alternative way. Nonetheless a type of agreement between the two political wings of the country in terms of extension of privatisation in governmental air travel companies, which was supported in the third FYP (2000-2005) when government was in the control of reformist and parliament was in the hands of conservative group. According to articles 126-130, the government is allowed to sell up to 49% of its shares in this sector to private and nongovernmental sector. This included foreign investors into rail road and air port industries who could work through regional joint ventures and so on. The consensus was around a type of management transformation in sub-ordinated activities to the private sector. But despite such evolutions in the formal institutes, seemingly the current government which has close political ties with the army and military services has shown no decisions to comply

with the foresaid consensus. The notification of Iran's Supreme Leader (2007) to the president at the bottom of his application for extra discount for local buyers of government shares is a witness to this disparity.

Hence we can conclude that condition for privatisation of this sector gradually will be prepared, nevertheless, empowering of army services within Iran's internal policies and emergence of this third player to the stage could shake the foundations of the existing consensus.

Q (3): How output of the considered organisation can relate with outcome of the state?

This sector's responsibilities are very wide and include road construction and maintenance, climate monitoring systems, rail road construction, management and maintenance, road transportation and shipping ports, and aviation control and management. The ministry is one of the largest governmental sectors in Iran. The geographical location of the country which positions in the cross way of East-West (from China to Turkey), and North-South connection corridor, which provides the nearest access route for Russia and new republics of middle Asia to warm free waters, bring this sector to the centre of attention of decision makers of the state. An international study (UNDP 1995) about an international road network depicts that investment on R.T is feasible, and Iran can take this sector as another resource like Oil.

As the result, the role of the government in this sector remains as the "Super structure" (Kettel, 2002) to invest and govern it, and major companies in this sector fall in the natural monopoly of the government. However the sector by nature is pulled to the competition ground with foreign companies putting the government under pressure to offer its services at reasonable price and acceptable quality. For instance in aviation industry –national airline (Iran Air) with 46 American and western based air plane, Iran Air Tour with about 16 rentals Russian Airplane and Mahan with 8 expand body airplane, also seven international and 26 local airports - the cost of some services to airline companies such as fuel, handling and tax has to be within the international frames of competitive cost across the globe.

Moreover domestic rates for the fuel whether subsidised or sold at market price impacts on customer choice between using own or public transport services, the issue that links the fuel domestic price and hence budget for importing fuel, and level of public transportation services. This link puts the central government and RT ministry in a trap of Oil price

fluctuations. The aviation sector suffers more from oil fluctuations and Iranian foreign policy than most of other sectors.

As stated by secretary of aviation community:

Investment of government in national Airlines even with detriments witnessed is not a strange story in the world. Governments usually enter to save them and compensate the losses through lateral airport services, keeping the jobs, or through tourism industry indirectly. The Iranian government has however a lot of challenges on its hands in terms of cultural and political limitations which are not common across the globe. Iranian government could not accommodate tourists particularly visitors from Western countries, a major barrier for tourism that could help growth and profitability of aviation sub-sector. Also existence signs regarding to intervention of military service in the field could prevent foreign companies to invest or joint venture within this industry.

According to Saedy Nejad, general director of Iranian railroad national company report (2006):

In the rail road industry during last three FYP vast investments has been done and about 8300 Km of railroads are built. However the target of becoming a major hub in the region is not even close. Dependence of this sector on government budgetary and even non-budgetary issues such as pricing and other policies would not allow the industry to achieve its targets as quickly as needed.

Road construction sub-sector also suffers from dependence on governmental budgetary. In this context FDI possibility is very low and even domestic investors including most of semi-governmental organisations do not have much chance of convenient and secure investment. The concerns regarding investment seemingly relate to distrust in contracts with the government in general, evident by some recent unsuccessful joint ventures. For instance Bonyad-e Mostazafan and Janbazn the largest Iranian charity which acted as an investor in Tehran-North motorway, has not succeeded accessing the lands government promised as part of government's commitments. In the case of Tehran-Tabriz motorway in which Melli Bank one of the main national Iranian banks invested is not granted permission to apply road toll charges to receive returns on the investment.

Results Summary

In summary, despite of a possibility of developing a modern governance within RT organisations based on the legal reforms (history of 44th Article of the constitution law and its amendments) and with considering the new arrangements in the political stage of Iran, topological difficulties, and growing of some cracks in the already achieved consensus about modernisation, and a lack of room for non-governmental investors the sector is and will remain largely dependent on the government budget and Oil price.

6.3.4.6 Case Five: Automotive Industry represented by Iran Khodro Company (AI)

The Automotive industry represented by Iran Khodro Company is a role model organisation and more importantly a prototype for governance. Some characteristics of this industry include “a cooperation model among government, market and individual customers”, “cooperation between domestic companies and MNCs”, as well as an experience for transfer of organisational technology. These have made the company a case for the study in this part. And questions will follow:

Q (1): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy.

Main message of the Taadil policy more than a reform in public sector was returning of Iran's economy balance between public and private sector. This imbalance traces back to the early days after revolution in 1978 in which hundreds of large enterprises whose owners had fled the country were possessed by the government by rules from revolutionary courts based on the 44th Article of constitutional law. These acquisitions led to a vacuum of government resources to fund and manage them. The large size government with insufficient resources had to stop or postpone fundamental investment which put the government under great pressure to become released from those responsibilities.

On the other side, industrial depression in Iran which had lasted for at least 10 years (since the revolution in 1978 to end of Iran-Iraq war 1967, led to a kind of dis-fragmentation and deconstruction of the nascent and oil-dependent industry which had been formed before the 1976 revolution through the import substitution strategy. The Iranian industry had suffered the pressure from two sides, dependence on oil income (UNDP, 2004), and lack of respond to market demands including progressive expectation which had been accumulated during the 8

years of the war, to which was added new expectation that the revolution had brought about. In such circumstances and in the absence of any clear plan and horizon for the Iranian industry, the Automotive Industry was facing critical conditions: 1) closing of Hillman in 1987 original company which provide Peykan(Iranian brand for Hilman and the most popular car in Iran) main and spares, 2) lack of alternative foreign sources for providing spare parts for Paykan, 3) no relationships possible to build with American Auto manufacturers due to political problems between the two countries and US imposed to a range of sanctions on Iran. Leaders of National Industrials Organization -who behalf of government were managing Iran khodro, the manufacturer of Paykan, made a decision to approach manufacturing spare parts domestically by utilising available capacities of the industry that was considerable in terms of space, basic knowledge, infrastructure and human resources. SELPIC (1980) was born as a coordinator agent to supply required spare parts for the domestic car makers by deploying domestic big and small factories, and other capabilities to substitute with foreign spare makers. This company was modified under the new name of SAPCO in 1993 to govern the position of Iran Khdro as the biggest carmaker in the region. SAPCO through a strategic plan and being located among carmakers, spare part makers, universities and research centres introduced a systematic approach using a type of rent generation model (providing loans and incentives including technical support to small and medium local companies, and guaranteed purchase of their products) which could generate an incentive climate to bring inactive or low performing SMEs to work with Auto Industry and also motivate some other successful industrial units to shift their business to spare part production.

But insufficient quantity of these productions and increasing gaps between social demands and domestic productions led to a situation that the minister responsible for the Industry in facing the questioning from the parliament on the low quality and low volume of production said: “we are in a situation that even if we give our customers car without doors they would be willing to accept them because there is no other options for them. They have been in a queue for a long time, and interestingly they can resale that car occasionally up to ten times more in the black market. Our factories are working with their full capacity and have no opportunity (time or resources) to repair or replace their machinery and production lines. The market, country’s condition and damaged and lagging national industry have led to this situation, so asking questions about low safety or not well sealed window screens have no place in this space.”

The assumptions in the import policy explained before included: the domestic companies in the first stage should establish their sales offices and branches and after sales service and garages throughout the country; in the second step they had to erect and organize a supply chain of car parts and spare production and assembly lines as well. In these two steps foreign limited requirements were observed but these companies had to readjust their foreign currency requirements in the third stage by dealing with the car parts and services that they represented. This plan could never meet success.

On one hand foresaid companies were not prepared to deal with vast amount and diverse activities such as production, import, export and domestic services. On the other hand foreign partners who may have been interested to get involved in such ventures could not count on a certain and stable market they were seeking. So while in the first step most of the importing companies could attract the hungry market through presale of the Imported cars and reap huge profits, but in later stages of this scenario most of them, except perhaps for Kerman Khodro that had partnered with Daewoo motor company and could establish a production/assembly line for assembling SKD, touched failure.

Limited market and fluctuation of the rate of foreign currency and government policy which had directly interconnected it with oil price were playing major roles. This strategy was put aside very soon but it showed that foreign companies have no tendency to engage with Iranian auto market and more importantly prove the truth that there is no quick route and shortcut between being a national main producer of cars and being an major importer.

Obviously reducing the influence of government departments and agencies on both sides of AI supply and demand led to a type of institutionalisation—a rent was generated for some stakeholders of Iran Khadroo and Saipa and six other car importers, which in further steps could become generalised through a number of social and political outcomes. Resulting from this transformation came about approximately half a million jobs within around 4000 large and small factories which seemed like a gift from heavens. Interestingly related to the important issue of technology transfer to developing states many of these enterprises have now moved to work under license of many MNCs.

For instance it is estimated that national demand for passenger cars may increase to more than 1000000 annually, while total domestic production are less than these figures. Another issue that was proved to the AI was that they could not rely on the subsidised foreign currency anymore and they have to work their cost and income in accordance with the free

market prices. In 1998 with the appointment of a new minister of Industries, Mohammadreza Neamatzadh who used to be the minister on industry brought for AI an extraordinary opportunity. The minister who has been the first government appointed director of Iran khodro also had served as the minister of work and employment after the revolution could combine his experience with the soft infrastructure that was developed under Negadhosseinian, former heavy industry minister. A package of laws, regulations, modern and private organizations include-R&D and reverse engineering units- an aggressive move circumstances towards a regime of managerialism and privatisation in the same time.

The project for developing of AI went through a process of paradigm shift, including elements of technology transfer, organisation learning, deregulation, marketisation and privatisation. The project could grow Iran's rank to the 16th in the table of world car producers (Research and market ranking , 2007) with a potential of around 1000000 car making annually. More than 1100 car part manufacturers were engaged and between 300000-400000 direct and indirect job opportunities have been generated independently from government investment and its bureaucratic barriers. A type of rent generation and rent generalisation through managing about 5,000,000,000 turnovers in car part production industry was framed. In particular emergence of two major public (semi-government owned) organisations demonstrated an incredible progress in rent generalisation, the criteria that North et.al (2009) have suggested as a sign of open access order synonymous with development. Interestingly in this sector we are witnessing a type of protectionism but not by central government. This was led through a coalition between heads of the above two companies who went to become strong car producers, and car part producers that now could frame two communities and make sound in policy making process. This coalition could resist against the central government and parliament tendency that through reducing tariff of car import were looking for customer rights, better quality and lesser price, the process that according to the Automotive law should functioning gradually.

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

Under certain conditions and bypassing the constitutional law the sector could be an important cross road to privatisation or in better word to make it independent from

government's resource and interventions. This project has gone through an unwritten agreement between the reformist government and conservative lawmakers at the time it was developing.

Progressive pressure of social/market demands for passenger car affected by changes in the national demographics and population structure, radical increase of urbanisation, weak and insufficient public transportation while in comparison development of road and routes construction had been done better than other parts of public infrastructure, and also reduction of supply of automobiles resulting from limitations in car import as well as influences of new liberalism ideas and NPM framework into the government approaches and policies after the war together resulted to above consensus.

Q (3): How output of the considered organisation can relate with outcome of the state?

More than 400000 direct and indirect jobs, being the first car maker in the region, more than 1 \$billion exports and respond to more than 1000,000 domestic demands, cannot be neglected by any government.

Hence the internal crises and external solution led to a consensus on AI to change through shifting from a full governmental control to a mix organization including many non-governmental organisations and private sector partnerships. Some of the initiatives implemented in this context included selling Iran Khodro's shares in the stock market, outsourcing or subcontracting manufacture of spare parts to private sector, and commissioning private sector for sales and after sale services, introducing some kind of competition by merger and acquisition mechanisms and restructuring some small AI companies into two large size assembly plants and manufacturers namely Iran Khadro and Saipa.

Import provision was copping with the condition that the importer should give long term commitments in terms of "after sales services, and contribute to spare part production". This policy although could not achieve the set goals however has generated a big pressure on quality of the domestic production.

The sector's successful venture in producing 400000 direct and indirect jobs in more than 1000 SMEs across the country, in terms of its position can naturally be a role model organisation for several sub-sectors in industry and perhaps a serious contender for establishing e-governance/e-government and its diffusion.

Insisting on modernisation in this sector (AI) led to resilience of the field so further changes in political scenes such as change of two governments and endorsement of 3rd and 4th Five Year Plan (FYP) did not negatively impact the sector, and both political groups were benefited from outcomes of this sector. The strategy of government in the 3rd FYP looking at reduction of state's intervention in market by enforcing mandatory tariff system and assignment of \$200000000 income, an incentive atmosphere for the sector as former minister of industry advocated.

Summary Results

AI could induce re-institutionalisation of the industry during two decades through modernisation, rent generation and rent generalisation, and growing as an independent sector. Framing a network of spare producers, carmakers, communities with a capability to bypass government policies could demonstrate an organisational change with institutional building implications which could be a role model for other branch of industry

6.3.4.7 Case six; Municipality of Tehran (MoT)

Although the Municipality of Tehran (MoT) was very successful in deregulation and organising a new generation of construction sector within the private sector (privatisation), selling legal exemptions in some cases (radical marketisation) and having less obedience from the central government (decentralisation) in Karbaschi's era, however importance of post Karbaschi changes and incidents including the national experience in democratisation and election of local authorities through a direct election was critical. The elected governing council would then assign a Mayor, which could be as another prototype for the governance model.

Q (1): Whether the organisation has been able to embrace and achieve modern characteristics during the implementation of Taadil policy?

Although between central government and MoT in terms of main issues- resource constraints- or solutions address to-privatization and deregulation-there existed a few similarities, their approaches and implications were vary. While central government by privatization was about minimization of government -for instance by abandon of 200 government-owned factories to private sector, in case of MoT advancement of the organization through forming of new

public-private partnerships and contracts or generating new semi governmental organizations were followed.

Initiating a new range of stakeholders in construction sector and relevant production unites with large outcomes for the state (in terms of macro economy it has brought employment, reconstruction of the capital city, reduced pressure on the treasury after the war, manifested a new type of public-private partnership and public administration, and left a culture in the governmental organisation to live independent from governmental budget).

“Decentralised” nature (22 similar local organisations and eight independent organisations), ease of “Deregularisation”, by having Special law and right of rectification in majority of regulations, “Marketised” model services in majority of activities also successful experience in “Privatisation” during the last 15 years could make the organisation as a modernised organisation at least regarding to its capabilities.

Historically, turning on its head the process of conforming costs documents by transferring this duty from highest position, the Mayor, to the first administration officer who has managed the costs and documentation, a great change started from here. This policy generated three indirect but powerful impacts in the municipality: increasing opportunity for policy making in the centre (free times); replacement of traditional way of complex direct administration; and to delegate activities such as contracting and outsourcing as it was safer for administrators and lower level authorities naturally. The above reform was done by a new commentary on the current laws and regulations and indeed was not a real deregulation but in action has led to an institutional shift in the role, status and relationships between Tehran Mayor and his headquarter (from a reactive administrator to a leadership position), local Mayors and municipalities (from disparate administrative and middle management to a somehow independent sections with a competitive environment with other local municipalities), and coalition with private sector (from a competitor to a governor and partner).

Q (2): How consensus among policy makers as well as other internal and peripheral players has involved the subject of modernisation of the considered organisation?

The picture of what MoT could have offered and done after the war is ambiguous, but there was an unwritten consensus about missing solutions. Even forgetting the resource crises and Tehran natural limitations, there was a number of paradoxical situations that should be looked

at. For instance whether improving Tehran status and developing it as a cosmopolitan, would not lead to another intensive wave of immigration-third one during less than two decades- to the capital was a major question. If this occurred, how the government could control it? Certainly deploying forces to control immigration was neither legal nor in line with the revolution's sentiments and promises to bring justice to the society. The government could perhaps not assume the role to restrict people's freedom of choosing their resident places to start with. On the other side the government's position to shift national resource to the capital (for its reviving) to satisfy a limited group of powerful or wealthy people was a big question too. The government was facing a big challenge in here; resource and topological restriction, and output and outcome issues of the MoT.

Exit from this juncture, as the Mayor's advisor explained was down to three options:

- 1) To keep the status quo and use some tranquilising quick solutions until the government find new solutions through the time. In this transitional state the MoT beside some non costly projects should focus on improving the organisation's productivity and attempt attracting foreign investment to the city;
- 2) Transferring the capital city, the suggestion that "Civic and Housing Ministry" had suggested and even submitted a plan to a preliminary research on;
- 3) Reconstructing Tehran by Tehran habitant contributions. For this direction there were no any precise or studied plans and was gradually formed as an idea intuitively offered and supported by Tehran Mayor (GH Karbaschi).

As for the first option Tehran population growth on one hand and lack of short term outlook solutions raise the concern that the problem may grow dramatically with uncontrollable risks of further migrations or a total social collapse. The second option which was an attempt to follow examples of New Delhi, Karakas and Washington required huge amount of resources that were available.

Q (3): How output of the considered organisation can relate with outcome of the state?

The main results from MoT's dependency from the government regards release of huge resources which the government has been obliged to provide, and this outcome was experienced in MOT through following ways:

Rent generating: This was achieved from exploiting a special approval from the supreme leader to charge the owners whose properties' functionality will improve after implementation of the civic projects. A kind of charge was formulated by the municipality and home office through an internal regulation which equated about 5 times more than normal rate for each meter of extension of residential units. This regulation and subsequent permission from it in many cases led to generation much more income which was redirected to the state in general.

Rent generalization: This was functioned through formulating and establishing unique procedure for all activists in construction field, also bringing some peripheral groups and elites in the stage-for instance by engaging of many artists and literary to cultural and life style centres and book shops. This could conclude an step more towards open access order OAO and state development

Taking part in resource creation: while the state was located in cross way of choosing between shifting a huge amount of scarce national resources to the capital city or steer it for reconstructing national infrastructures. The idea of building capital by resident's involvement and market system could offer a way for exiting the above crises for the central government. Nevertheless overcoming over that problem could make a good credit for the revolutionary administration model and a remarkable achievement for high level authorities and decision makers. Rapid changes of the capital appearance and proxies which looked quite threatening in the verge of collapse, was great news for the state. The opportunity of constructing a modern and attractive city was induced through generating entrepreneurship space by Karbaschi and his team to maximise communal benefits alike.

In sum: Tehran beside of institutional status and modern reputation was a role model organization long one decade. Moreover its special characteristics (40% of national GDP, 15% of the population, locating of all ministries, 85% of administration, 65% of qualified people and 60% of knowledge-Information business) and also having global city specifications (including Transportation hub, hotels, monuments and skyscrapers as well as local attractions) will make the MoT as a major candidate.

6.4 Discussion

In all the three last cases examined, the law and organisational structure were seemed to be prepared for shifting to and implementing the NPM concept. For instance existence of vertical and horizontal and cross organisational structure will help them to devolve and make

a real competition among administrators in various levels of their hierarchies, which implies the concept of “Decentralisation”.

Special laws and regulations in terms of procurement, outsourcing, income and expenditure and contracts which were boosted in the light of general atmosphere of generic national laws such as the first FYP and Taadil Policies, gave their leaders open hands to function “Privatisation”, “rent generation”, and “rent generalisation” more than other organisations if they decide to do so.

Deploying existing laws by the MoT and RT leaders and their self confidence to re-interpret relevant regulations in favour of their organisations indeed stem from their valuable experiences and knowledge of the strengths and weaknesses of such rules as well as their special political relations with the President and/or the central public administration. So it is not surprising that both of these two organisations set out to break from the pack. Anyway together with general conditions and their decisive position have offered more room for “Deregulation” in these two state and public organisations. Unlike these two the situation in the AI case, except for some important barrier such as exit from governmental interventions, everything else goes and runs through the general law (at least at the starting point).

With regard to Marketisation, AI had not any limitations and all of its productions and services were tradable, and similarly for the RT sector (at least in transportation section such as aviation, rail and road transportation) which has tradable services but government price control was in force and a barrier. None of the Iranian governmental organisations could make “Marketisation” happen during 2001-2005. Interestingly in the MoT the Mayor’s team have successfully made nearly everything tradable including rules’ exceptions or even some prohibited activities like selling surplus density for constructions.

All three organisations’ leaders had certain political reputation but their self-confidence was stemming not just from their contacts and relationships with high authorities but also from their expertise, leadership capabilities they were involved in. For example the Tehran Mayor had a background as a member of the Leading Council of Iranian Broadcasting organisation (IRIB), and an independent governor of Isfahan as an important province of Iran. In case of RT, Khoram who started his works from governor deputy in one of the provinces has experienced governing of three sensitive provinces and the Home Ministry deputy as well. Similarly Nejadhossseinian, the former Minister of Industry who led the AI reforms has been one time Minister of RT.

Almost all criteria identified for an organisation to act as the mediator for shifting e-governance paradigm to the state were found applying to the MoT. This organisation can play as the initiator of the project to develop and diffuse e-government to its full potential. But the question is whether this critical role for the organisation is understood and accepted by different layers of the organisation. Also other concerns exist in this way including: whether this national role can join with the organisational interests; and how much chance is there for providing a consensus among major players of this move (the MoT and other stakeholders) to take responsibility and participate in the project. As a last concern also, as advised by the panel members discussing the results, it should be further investigated that if in the absence of a national pull or demand for the outcomes of e-government/governance the chance of the outcome diffusion to other organisations and parts of the state will be significant. Future research will include this particular issue.

CHAPTER SEVEN

In-depth study of Municipality of Tehran; can MoT implement e-governance and diffuse it?

7.1 Introduction

Our second round of case studies led us to shortlist three more prepared organisation of which the MoT could successfully passed the test of modernisation and institutionalisation criteria set for the study, and its ability to undertake a process of implementing it. However there are reasons to drive us to look further into the case in terms of level of readiness, and also whether they have the will and intention as well as capacities needed for such a challenging project. Some of these reasons are discussed in the following.

Although our theoretical criteria applied to MoT resulted a positive and optimistic view of the status of the organisation and that less institutional barriers or risks factors can be anticipated for implementing e-government in this organisation, but in the same time the organisation's mission and goals, formal or informal, did not include or indicate in any way or phrase a position of becoming a role model for similar local administration agencies as well as for the central government and its large body of departments. Also it is fair to ask question such as: whether the rational choice among MoT leaders/managers and their relevant stakeholders or other possible followers may gear up towards e-governance? whether in the manner which MoT's intentions and internal consensus takes an institutionalisation direction, a consensus towards governance and bringing social networks to ground can be traced among MoT key players or not?

Also it is a matter of concern and should be noted that while environmental circumstances related to such evolutions put the organisation under pressure to improve its functions and role, but the current government administration (2004-2009) has brought more challenges to this improvement than help and support. Can a move at the scale of e-government be made in the absence of support or presence of pressure and wrong attitude of the government?

For instance, while almost all required formal institutions such as law and regulations for an integrated management at cosmopolitan of Tehran is provided though 3rd and 4th FYP passed with support from both main political factions in the parliament, in action the central government has neglected those rules. Or while the law of provincial and local councils

offers more jurisdiction to local councils, as the building blocks of social participation, some members of the parliament have in coordination with the Interior Ministry, submitted a draft of a bill with which appointment of the Mayors of large cities is given to the home office. This bill however is not approved by the parliament (yet).

In response to such doubtful questions some experts are of the opinion that these counterproductive conditions will not stand for long referring to a previous confrontational competition between the incumbent president and the Teheran Mayor. However more reasons are needed to judge the situation and have institutional predictions. We therefore need more data about the attitude of MoT managers and their likely partners in e-governance project. We needed to know: how major players in the municipality do look at the future of the Teheran regardless of who is the Mayor or the president; whether organizational values, demands or challenges can trigger another institutionalisation shift; whether e-government and inherent paradigms such as global city, social capital and good governance have been recognised by the organisation leaders and stakeholders, and are located in their priorities not only as a slogan but as strategic solutions for addressing inefficiencies.

Also we required to know whether important external factors such as relationship between MoT managers and public, and ICT specialist companies and people capabilities and supports are aligned for implementation of e-governance. Regardless of the present government administration, that stands as opposition mainly due to personal views and matters between the president and the mayor, it was necessary to verify whether positive feedback of other key players in this context can be anticipated or not?

To find answers to above questions a further study was designed and conducted into the case of MoT. The study was carried out using a questionnaire based limited survey of key managers of four clusters in the MoT and its stakeholders. The questionnaire for ease of answering and analysis was designed as close ended questions of multiple choice and Lickert style. Through four workshops and distribution of questionnaires to known and named figures identified through advisory team and other channels (a deputy and an advisor to the Mayor).

7.2 Why questionnaire?

The reasons for using the questionnaire instead of interview method mainly return to the limitations that researcher was facing. First of all due to the distance between the study place, Iran, and the research base, U.K, it was impractical to arrange meeting the number of people

from various organisations in the timeframe available considering that the kind of people targeted was not very easy to find free. Second and more importantly was the matter of finding relevant and appropriate candidates with sufficient and relevant experience of management in one or more periods of the MoT history. For instance the first confirmed appointment with the Tehran Mayor was postponed until further notice due to an urgent state related matter and only was re-confirmed when the researcher had left the country. Another issue was the number of questions needed to be asked which seemed to be impossible to review and get to the end in one interview session. Finally as the intention was seeking their views and attitude a questionnaire could provide a more standard model for the analysis stage. As the result in consultation with the advisory panel the questionnaire method was preferred and applied.

7.2.1 Our approach to the questionnaire

To address the units and nodes of the MoT structure which could be counted as relevant and sensitive in response to e-government, three boundary areas in three main layers of the governing body of the organisation were considered. The reasons for this included: with e-government implementation we mean achieving full potential that in Layne and Lee model (2001) equals to the fourth step of its maturity resulting in vertically and horizontal integration. Also e-government is about revolution in the Weberian model of bureaucracy. The e-government mission is supposed to be removing the boundaries stemming from hierarchy and division of work labour-Weberian model- and to eradicate the boundaries between business (G2B) and citizen (G2C) to share information and knowledge among departments and people (Evans and Yen, 2006). The designated layers included 48 members of Mayor's team in the MoT headquarter administrators constituted of 117 organisational posts, and 272 other local managers at first and second organisational level positions. In theory to expect change of organisational role and achieve e-governance these groups of civil servants should change their mindset and behaviour and attitude. These groups as Fountain (2001) suggested should become convinced about the type of technology which they need and in a cognitive process enact it into the organisation. Also as Heeks (2005) proposes they should keep other managers and staff in line for implementation of e-government. As the result we need to study to a reasonable depth among these layers of management in MoT.

Of course other stakeholders and participants in this organisational change should be considered. Such stakeholders include: Tehran city council members, the Interior/Home

Ministry (its construction deputy and in particular office of Municipalities), individual investors, construction contractors and companies, and any other companies involved in the municipality contracts. A natural consensus among above stakeholders at least with regard to e-government through definition of service delivery could be expected while the council is seriously looking for e-governance.

Major player in this regard-the city council- to enlarge more room for a cooperative governance has followed passing a draft to define sub-councils (called “Shorayary”) which are supposed to be formed in local areas and community units (like parishes) to assist the councils in controlling and monitoring municipality units and also provide participation of citizens in decision making .Councils are also in a challenge with the central government to lobby with lawmakers in pursuing execution of the “integrated management law” (Article 137 b 4th FYP). This law would have implications such as formation of decentralised local governments and expanded involvement of democratic institutions in the governance of urban areas. Through an independent IT project, the council has also launched a comprehensive plan including hundreds of necessary online services. According to this plan Tehran will assume a position as an “Intelligent City” synonymous with Information Society (I-Society).

The Interior or Home Ministry has an inherent mission, based on Article 6 of the law of municipalities, to look after the information in details about municipalities’ income and expenditures.

7.2.2 Steps of deployment of the questionnaire

The following simple steps were taken in the conduct of the study:

1. Plan and time table
2. Questionnaire design
3. Arranging workshops for the involved people preparing them for filling the questionnaires
4. Further distribution of the questionnaires and receiving returns
5. Analyzing the results

The primary time schedule for the study was developed as shown in the following table

Case study time plan	
Designing and calibrating the questionnaire (and translating to Farsi)	Four weeks
To get approval of the Panel	One day
Plan and run workshops	Four weeks
Distribute and collect questionnaires	Four weeks
Data extraction and analysis	Two week
Writing up the report	Two weeks

Table 7. 1 Case study time plan

7.2.3 Questionnaire design

In the first step, a semi-closed questionnaire in five sections and thirty five questions was produced, reviewed and confirmed by the advisory panel.

Questions are designed using a five scale answer spreading from “completely disagree” to “completely agree”. Nearly every question is supported by at least another one as an attempt to cross examine the ideas and add to the answers’ accuracy and reliability. Also at the end part of each group of questions respondents were offered to add their comments to reflect any further thoughts.

In addition the researcher first designed the questioner in English (as appears in Appendix 1) then translated it into Farsi. With the help of the panel supported the research the questionnaire was examined and calibrated to make it as meaningful to the respondents as possible.

7.2.4 The questionnaire content

In section one of the questionnaire, e-government forms and stages from emerging to mature stages (as suggested by UNDP, 2004) is explained briefly and then through five groups of questions each with five possible choices the views of the respondents are questioned.

First group of the questions focus on key actors’ intention towards e-government throughout the MoT such as: 1) its leaderships (the Mayor of Tehran regardless of the person in charge during past 20 years); 2) organisational body, administration and middle managers; 3) key decision makers i.e. council members; 4) candidates for outsourcing of MoT’s information systems development and implementation. Also the MoT managers’ trust in private sector as the main stakeholder of e-government is put into question in this part.

Through second group of questions other main prerequisites for e-government including mutual trust between citizens and MoT are examined using four questions. In the first question MoT managers' opinion on people trust in the organisation (considering the relatively troubled background in this regard) is questioned. In question two, considering that in general the Tehran Mayors usually bring their own teams from out of the municipality, trust or distrust relationship between MoT leaderships and middle managers and also the resident experts and civil servants have been the subject. Question three in fact refers to the former Mayor's situation who moved on to be the country's president candidate, an opportunity contributed to by his position by producing short terms quick results that attract the citizens, (as opposed to infrastructural and software initiatives such as e-government. The fourth question examines the possibility of devolution or providing proper grounds for participation particularly at lower levels such as local areas.

In the third part of this section three questions are put forward; the context of the question refers to a dimension of the research theoretical concept related to existence of a global concept or paradigm or organisational technology such as global city in the mind and hands of MoT managers. The questions addressing this issue, which has e-government as an inherent part of it, look at elements including: 1) intention of MoT leadership; 2) existence of a strategic vision among MoT decision makers and managers, and 3) possibility of global city model be achieved and realised as the rational choice.

The fourth part was set to identify from the view point of middle managers and administrators: 1) the approach of MoT leaderships to such a grand transformation through a vast decentralisation and re-organisation to expand participation; 2) possible reaction and type of response from MoT body; and 3) technical/technological possibility of this kind of participation. In the second section which addresses the joint efforts and ventures of IT and ICT companies and MoT specialists, which looks at internal and external players' attitude towards possibility of a close partnership in e-government implementation. Five questions are set to examine this aspect. The first question checks the chance for coexistence and development of e-government as a complex, unknown, difficult and long returning project in comparison with quick, routine and fast returning as well as eye catching programs. In this, legal obligations/priorities of MoT have been questioned too. In question two real local technical/technological capabilities in terms of IT, ICT are examined supposing that MoT is ready to initiate this partnership. The third question regards readiness or intention of IT and ICT companies and professionals to contribute to a long term investment with the goal of

turning, through enabling and encouraging, the MoT to take a leadership and coordinating role (role model) in e-government implementation for all organisations in the country. Fourth question is about availability of financial abilities for this contribution, and in the fifth question perception or understanding of criticality or necessity of this partnership even though all players are not ready for it, is questioned. In third section the attention has been turned to the background and general attitude and response toward e-government/governance as an innovative solution. Questions are directed to identify possible responses from parliament, central government and similar or competing organisations. The answers are coming as a perception from the view point of experienced person at executive levels of MoT as well as legal department. The questions also serve to get an understanding of the diffusion effect of e-government from the pioneer organisation to other organisations. In part one of this section three questions are set. The first one examines the reaction of the government whether it may be positive, negative or indifferent. In second question parliament's reaction is asked whether it will make appropriate rules and regulations to call for systematic diffusion of the model or may remain indifferent unless pursued by the government or in case it is referred to the parliament for legislative enquiries. In the third question the situation or attitude of other organisation whether they may engage in learning or oppose it is questioned. Finally, in the fifth section we have four questions. The intention of this section is to find out the views shared by all experts and professionals on the possible role of international organisations and the possible reaction of domestic players if such organisations get involved in the process or support particular organisations. Question one looks at readiness of MoT to be get into a major partnership with international organisations. Question two checks readiness of domestic IT and ICT companies and community in this regard, and third question is on trust in such foreign organisation for national players, and whether those IO will be willing to get involved in such projects in developing countries, particularly Iran. The final question concerns the role and possible reaction/attitude of central government to this matter.

7.2.5 Data collections

Approaching data collection, the situation could be assessed as complicated. Since the people who were supposed to be surveyed came from a variety of disciplines and organisations, and with different background, they could not be expected to hold precise judgments about all issues examined in the survey. Also from own experience and suggestion by the advisors it

was seen as necessary to explain the ideas of the research and theories followed to the potential participants of the study. For this purpose four workshops were arranged at different dates to suit the time of people. Experts and professional familiar with MoT administration, government decision making system, IT management in parliament and government's body, and IT/ICT professionals from private sector who have had some experience working for/with Municipalities were invited to attend.

Each workshop started with a brief presentation of the research aims and objectives and background. A discussion then was instigated about core points and linkages between different disciplines considered in the research and the necessity for following an integrated perspective of the issue. Afterwards the questionnaires were distributed and filled by participants during which group or one to one discussions were happening. Some people would have preferred to fill the questionnaire after the session. The workshop sessions were found very fruitful and had more outcome than just filled questionnaires. Learning from each workshop was used in the following ones and a few questions were calibrated slightly (not to change the structure causing inconsistency).

In total 28 questionnaires were collected from the four workshops and another eight were returned by MoT leadership level people involved with planning in that organisation.

7.2.6 Data analysis

Each group of answers were transferred from questionnaires to separate tables. Answers to each question is calculated on a 1 to 5 weight by taking the average which is supposed to represent the averages attribute of the issues within the specific group. Each question's answer is discussed separately and the total outcome is interpreted. This was expected to lead to standardisation of the results. We assume that the average answers less than 2.5 and more than 3.5 can present a reasonable level of negative or positive reflection of respondents to that question or issue and hence acceptable. Also averages less than 2 and more than 4 in the Total Weighted Averages are taken to represent a consensus among respondents and their attitude. In the same vein we assume that the averages around figure 3 cannot demonstrate a significant message unless we accept that either the question is not designed properly or the respondent could not understand the purpose or meaning of the question, or the information, condition or the analytic framework was not sufficient or clear enough for the respondent to make a sound judgment.

Also as mentioned before each section had provided space and opportunity for the respondent to make comments, which ended us with a rich set of views and comments. Comments explain the reasons for rejecting the question’s hypothesis, open new windows to the research discussion, or give some innovative suggestions. These comments are collected and summarised which will be discussed in result section in the following. Each section is discussed for all questions, followed by comments’ summary and a short discussion of results and learning from that section.

7.3 Results of Part I: position of MoT as the initiator and coordinator of governance and e-government

7.3.1 Question 1

The results from this part are shown in Table 1. The answers are organised showing: Local Managers in local municipalities (LM); Headquarter Authorities (HA); and Meyer’s team (Mt). Also in the second row the number of answers (N) received for that question; Average score given to the question by each group of specialists (Av), and Total Average in each question which is a weighted average according to numbers of respondents (TWA) are indicated:

Part I: position of MoT as the initiator and coordinator of governance and e-government	LM		HA		Mt		HA & Mt	TWA	
	N	Av	N	Av	N	Av	Av	N	Av
1. Organisational approach to strategic changes	12	2.8	8	3.5	5	3.8	3.6	25	3.2
2. Leadership intension to fully engage in change and its management	9	3.1	7	3.8	5	4.2	3.9	21	3.6
3. Financial ability	11	4.5	7	4.2	5	3.8	4.4	23	4.3
4. Readiness for outsourcing	11	2.8	8	3.3	5	4.4	3.7	24	3.1
5. Private sector capabilities	10	4.7	6	4.6	5	4.6	4.6	21	4.6

Table 7.2 Responses to the Questions of part one

1- The question originally looks for the degree of consensus among management team and existence of collective will for a radical change in MoT processes. Although the average 2.8 for local managers does not represent, as assumed, a strong stance and condition in this

regard, however higher weighted average among Mt, and HA, who formed majority of respondents, can signify existence of better attitude or tendency among higher level authorities to above changes. Here total weighted average 3.2 cant not represent a throughout consensus.

2- We can find a positive –not strong-attitude about Mt intention and readiness to contribute in a pervasive rearrangement of the working processes throughout the three groups; Mt by 4.2, HA by 3.8 and LM by mean of 3.1.

3- Regarding capability of MoT to shift the resources into the e-government projects, the average rate of 4.3 can signify a type of consensus among all three groups of managers that MoT can finance e-government easily. Interestingly that the local managers, who are closer to resources and their utilisation show a strong support for the idea reflected in the average of 4.5 agreement for this capacity.

4- The average of 2.8 in question four by LM group may signal a lack of agreement for outsourcing of IT governance, however high rate of 4.4 from Mt and almost high rate of 3.9 from HA can confirm the tendency towards outsourcing in MoT. Here a gap or lack of aggregation can be plausible.

5- Considering the high average of agreement (4.6) among all three groups of MoT mangers, it can clearly be said there exists a strong and positive attitude towards privatisation of IT in this organisation.

Comments by respondents:

1. A partly participatory form in the design and development of the first five year comprehensive plan of MoT ratified by Tehran city Islamic council in 2009, and finalising the first comprehensive plan of Tehran in the same time after a decade of city councils establishment can be taken as a signs of a big evolution, if not revolution, in this organisation's behaviour and thinking.

2. MoT has experienced many visionary and decisive leaders, but a presence of a culture of over loading to force and do everything in unreasonable and unrealistic time frames, plus the tendency to politicize every issues in this country have resulted in an attitude of crisis management style leadership which is against software oriented and long term programs such as e-government. The organisational culture of carrying out jobs too quicker than usual is against the gradual need and nature of learning in the organisation.

3. Outsourcing of IT governance requires very risk taking managers, acceptance of some implications in short term, and/or a strong coalition between public and private sectors which are not available in our country.

4. In terms of motivating social participation and building trust and social network, although MoT has more chance than other organisations, however other parts of the puzzle – state and council- are not in the hand or control of MoT and its leaders.

7.3.2 Discussion

Comparing the averages for the means attributed to the three layers of MoT key managers, clearly gives this message that, a positive attitude and consensus exists among key policy makers and key policy executers within MoT in terms of reinventing their roles and rearranging their relationship specifically with IT sector through e-government. Although some figures represent less strong agreement in some of the issues, for instance the relatively low average of 3.1 for advantage of outsourcing of IT governance, however a higher rate of 4.8 as a strong agreement for IT privatisation in the organisation can be found instead. So although we cannot judge existence of a strong consensus or reversely a strong duality in this regard, however more participation from local managers (LM), theoretically, can be considered as the channel to shape the consensus in this area.

7.3.3 Question 2

The second question consists of four sub-questions which are about mutual trust between main players of e-government.

Part I: position of MoT as the initiator and coordinator of governance and e-government	LM		HA		Mt		HA& Mt	TWA	
	N	Av	N	Av	N	Av	Av	N	Av
6. Mutual trust: MT & citizen	11	3.1	7	3.6	5	4.2	3.8	23	3.6
7. Mutual trust: MT & HA	11	2.6	7	3.4	5	4.4	3.7	23	3.2
8. Mayor's intention: works for more votes	12	2.8	8	3.2	5	3.4	3.2	25	3
9. Social Participation	12	2.5	7	2.8	5	3.2	2.9	24	2.7

Table 7.3 Evaluation of trust among key managers

6- Focusing on assessment of public trust to MoT, from view point of MoT managers, the average of 3.6 can show a somehow medium level of agreement on existence of sufficient

trust in this regard. This is while the LM presents a higher average of 4.2 for this, the reason of which may trace back to a comparison of traditional position and perception on MoT staff as people associate with serious corruption and bribery, with the new changed position which features MoT as a service provider organisation.

7- Looks at the trustful relationship among three layers of MoT managers. Although average of 3.1 does not represent a strong agreement on a proper level of trust, however shared average 3.7 between HA and Mt can be taken as a positive attitude between higher level authorities, while this view by the weight of 2.6 averages is not shared between LM and others. It may signal a slight but important duality.

8- To find the outlook of managers into linkage between personal and political benefits of Mayor and MoT activities, something that has not been a norm in Iran and similar non-really-democratic states (working for buying the vote). The result of this question which shows an average of "3" could not pass a clear message.

9- Attitude of the managers about value and effects of formation of councils local assistance in the city different sections (called "shora-yaree") as the building block of participation has been questioned here. The responses however show an average of 2.7 which does not offer a positive agreement about this lately established institute.

Comments: The following comments are selected as most relevant and important ones from the projected views by the respondents.

1. The unclear linkage between Mayor and his team's personal benefits and pay with their level of hardworking or productivity is not a big concern for the public because they only want the services delivered. However this issue beyond this level of management cannot be overlooked or resolved easily.

2. Although the local areas sub-councils ("shora-yaree") can be an important unit for social inclusion and contributions in city managements, however the stress on monitoring and informing (not contribution in decision making) as their main mission could not draw the attention of social elites and professionals to take a role in a not important play.

3. A proper combination of long term social requirements with sensitive and occasional Mayor's interest is possible but can happen through high level scripts such as law and parliament orders, or through a democratic process.

4. Jurisdiction of the council and the Mayor, according to existing law and regulation is not sufficient to fix long term social requirements based on outputs of MoT unless they are

ratified by the Parliament. So sometimes despite a consensus among all stakeholders the agreement cannot lead to a permanent change or a fixed situation.

7.3.4 Discussion

Although judgment about lack or existence of trustful relationship between MT stakeholders is not simple and we may need more works and researches, however an optimistic outlook shown by MoT managers represented by the average of 3.6, which shows that in one side of the equation an integrated understanding about importance of mutual trust should be assumed. Although in the same time with the average of 3.2 we cannot assume a mutual trust between Mayor’s team and management team. in the same line the average of 3 in the third question cannot give a clear message about attitude of all three layers of MoT regarding Mayor’s intensions. Mayor’s hard work may be interpreted as his personal improvement and an opportunistic attitude rather than serving what city really needs, even if the result lead to losing votes. In the fourth question the average of 2.7 also cannot represent a consensus or attach a serious purpose regarding social networks.

7.3.5 Question 3

This question was about the idea of Globalisation and in particular paradigm of global city which Tehran is expected to move to become one considering being a city global function rather than local or domestic position.

Part I: position of MoT as the initiator and coordinator of governance and e-government	LM		HA		Mt		HA& Mt	TWA	
	N	Av	N	Av	N	Av	Av	N	Av
10. Global concept existence	9	3.2	7	4.4	5	4.3	4.3	21	3.8
11. Distance to Global city concept	8	2.7	8	2.6	5	2.4	2.5	21	2.6
12. Global city by government Aid	10	4.1	8	4.2	5	4.3	4.2	23	4.2

Table 7.4 Vision of Organisation about global city

10- shows a relatively high rate of 3.8 as the average of answers from all respondents which clearly shows that this Idea is known among MoT management surfaces and there seems to be acceptable consensus on taking and following the Global Idea by the Mayor.

11- although the average of 2.6 is not assumed as a strong indicator but somehow can represent a consensus on the existence of a gap between Tehran and standards of global city among all three groups of MT management, transcending a general negative outlook in this relation.

12- The average is quite high at 4.2 on achievability of global city standards for MoT by resorting to government aids. Although this can represent a strong consensus about possibility and positive attitude about this big and attractive goal, it appeared against our assumption about independence of MoT from government aid and interventions in approaching e-governance.

Comments:

1. At least in two long periods global city was a vision for two of visionary leaders of Tehran city. However despite the positive effects the paradigm could have on the city it would lead to an overload for city which has fundamental challenges on its hands. Besides this issue became more problematic in the presence of the fact that Iranian leaders do not ideologically believe or agree with the capitalistic model as the bedrock origin of global cities concept.
2. Although many functionalities in MoT can be evaluated at a global city standards, nonetheless Tehran limitation in terms of geology (being located on an earthquake belt) or presence of military bases reduce the flexibility and possibility of the city expansion, imposing deeper restrictions for becoming or acting as a global city.
3. Decentralisation and devolution for shaping local government model, and also models such as integrated urban management are ideas which to succeed need different models of polity (i.e. federalism). However whilst Iran and its policy sector have been experiencing risks of war and de-fragmentation challenges, adopting and implementing global city to become a role model for other five main Iran's metropolises, will be admittedly against rational choice and has little chance for implementation.

7.3.6 Discussion

Strong consensus about possibility of Tehran as a global city can play as an important driver and motivation as well as a way for paradigm shift. This not only can support implementation of e-government as a realistic goal but also can frame a strong diffusion model for next steps toward good governance.

7.3.7 Question 4

In this part after a brief explanation about social capital, four questions are set to examine the issues of public participation.

Part I(4): position of MoT as the initiator and coordinator of governance and e-gov	LM		HA		Mt		HA & Mt	TWA	
	N	Av	N	Av	N	Av	Av	N	Av
13. Leadership & participation acceptance	10	3.2	8	3.4	5	4	2.8	23	3.4
14. Middle manager & participation	12	3.8	8	3.4	4	3.6	3.5	24	3.6
15. elites participation	9	3.4	7	3.8	5	3.8	3.8	23	3.5
16. specialist participation	10	3.6	6	3.6	5	4.2	3.8	21	3.7

Table 7.5 Social participation estimation

13- All three management levels had an overall of 3.4, this score although was 0.1 less than our gauge of consensus, however it presents very good position of the organisation in terms of participation of stakeholders.

14- an acceptable average of 3.6 is resulted for all managers showing their support for proper capability of the MoT to engage with social participation;

15- The acceptable average of 3.5, regarding elites participation, specifically among HA & Mt teams can show the need for external intellectual support in the headquarter rather than the existing line managers.

16- A high average rate of 3.7 related to embracing specialists and professionals' contribution and participation shows both the need and readiness of all managers to this participation.

Comments:

1. The concept of participation should be examined in real world by channelling social contribution in sensitive and important functions, something that is simply not in the Mayor's agenda. Moreover while council institution is in its nascent times and there are still some unclear issues regarding Mayor's duties, stressing social participation may become a tool to insert political and bottom up pressure on the central government from the council or Mayor. This situation can play against the Mayor and in hands of the city council or conversely can

become a support for the Mayor to have his goals and plans approved by the council despite its possible opposite intentions.

2. The historical imbalanced distribution of population, wealth and city facilities added to physical and natural restrictions would not allow meeting a balanced and fair redistribution of wealth and services through social contribution specifically in relation with decision making in Tehran. Social participation for instance in resource allocation systems, i.e. “e-budgeting”, may lead to social conflicts or improper allocation of resources. So the object of establishing an e-decision system may drive the society to the trap of a new disparity, as a sign of underdevelopment situation.

7.3.8 Discussion

In general readiness for shaping and forming social capital or networked society, as an institutional foundation for e-governance in MoT, seems to have received wide agreement across all three layers of MoT managers. According to the high average of 3.8 among HM and Mt regarding to their attitude to elites and experts participations in major decisions, beside the low average for 2.6 of the same group in the first question, addresses the approach of municipality’s leaders to participations. In conclusion real participation at the level of leadership may face challenges corresponding with e-governance possibility.

7.4 Part II: Candidate for being motivator, Pioneer or coordinator of e-governance

This part is about outlook of IT sector ITS and Government specialists GS and MoT managers in terms of capabilities of both parties for initiating and implementing e-government in the absence of central government’s direct role. The idea was to get an estimation of MoT and IT sector professionals’ motivation and preparedness to enter and coordinate a type of public private partnership.

Part II: How can be motivator, Pioneer or coordinator for e-government	LM		HR		Mt		ITS		GS		TWA	
	N	Av	N	Av	N	Av	N	Av	N	Av	N	Av
17. need of external driver	10	3.1	8	3.6	5	3.3	5	3.2	7	3.5	35	3.3
18. consensus in substitution with external driver	9	3.5	8	3.4	5	3.5	5	3.4	7	4.7	34	4.2
19. IT activists could be motivator for MoT	8	4.2	6	4.6	5	4.2	5	3.8	7	1.6	31	3.6
20. IT activists as motivator and coordinator	8	4.4	7	4.1	5	4.3	5	4.5	7	4.7	32	4.4
21. MoT could be the coordinator	11	4.1	8	4.6	5	4.4	5	4.6	7	4.2	35	4.3

Table 7.6 evaluation of driver (Triggerer)

7.4.1 Question 5

17- The total average among of 3.3 while deviation is around 0.4, cannot send a clear message whether without an external pressure or stimulation, e-government project will stand a good chance for implementation.

18- This question in fact repeats, for cross check purposes, the previous question using different angle and wording. Despite a fair Deviation of 1.2 among averages of MoT managers and IT activists, it can be clearly that the figure of 4.2 for TWA can represent a positive attitude and confidence on efficiency of IT sector capabilities as well as MoT managers to perform complex IT programs.

19- Despite the TWA average of 3.6 could be considered a reasonable rate regarding IT professionals to act as initiator of the e-government project. However the big gap (of 2.6) between averages of MoT and IT people can stand against foresaid role for IT sector.

20- This question which is a rephrased form of the previous question, shows an average of 4.4 which can confirm the result that IT activist can play as proper partners but not sole initiators or coordinators.

21- This question examines the previous question in a reverse way. With a high average of 4.3 and low overall Devation of 0.4 and little distance of 0.2 between IT and MoT managers' opinion it can be concluded that a consensus about MoT to play as a coordinator exists among our respondents.

Comments:

1. Business model based approach to coordination of the project (a collaborative model) is more practical than unofficial and non-administered model. For instance shaping a consortium of partners can satisfy the intended aim of this question.

2. Looking at the domestic political culture, a long term coalition without membership of central government or different from central government policies is possible. However when other members of the coalition have had strong roots in domestic business the IT activists may be considered as weak and vulnerable players in this game. Also regarding the role suggested for foreign organisations as coordinator, this option seems not to be an adoptable model considering the general suspicious of Iranian politicians towards foreigners.

3. This driver can be operated from other players' side for instance "Tehran city Council", "The Excellent Council of Provinces ("Shorayee Aaltee Ostanha") or "Council of States Expediency" (Majmaee Tashkhisee Maslehatee Nezam), which have responsibility in

terms of a wide range of state's policies. So IT specialists can lobby via such organisations in order to play a leading role.

4. A well credited domestic or regional organisation with overarching position over the state or organisations like a specific unit of regional coalitions or unions such as Islamic Conference or other regional organizations can play a leading role in this context.

7.4.2 Discussion

Although a decisive intention to form a coalition cannot be perceived from answers to the last group of questions, a clear consensus in this stage has less chance to occur automatically than accidentally. This means seemingly that the more likely solution for shaping a consensus can come from convincing managers of the MoT without institutional barriers. This could lead to the launch of e-government and e-governance and putting it in a right track. This is because main players and stakeholders in this play are important players but none can take the leadership role. This situation is unique and coming to the central government even if it wishes to do take the lead, institutional obstacles will stand against it. In here we need a catalyst to trigger the e-governance as a concept and model.

7.5 Part III: estimation of responses of Central Government and parliament

Intention of this part was to gather an estimation of expectable reactions and responses from the Central Government and the parliament. In addition to the originally targeted respondents we could add six experts and professionals in government issues who had at least 10 years experience of working in key position in central government and/or parliament to the studied community.

In the first sub-section the government's possible reaction or response was asked to include a spectrum from very negative (to see itself in competition with the MoT in response to the initiative) to very positive (to support the diffusion of the move and models to other organisations though passing of laws or instructions. In the second sub-section possible challenges from the side of Parliament is examined whether they will support the initiative through law and regulation, put it aside as a non important matter, or will await the government's reactions. Finally in the third sub-section this possibility for other organisations of similar or different structure or functions have been questioned.

Part III : estimation of Central Government and parliament responds		LM		HR		Mt		ITS		GS		TWA	
		N	Av	N	Av	N	Av	N	Av	N	Av	N	Av
(1) Central government reaction	22. Welcoming/ regulation	10	2.7	7	2.8	4	2.7	5	2.6	6	3.5	32	2.8
	23. Being opposition	12	3.1	8	3.2	5	3.3	5	3.4	6	2.6	36	3.1
	24. Being indifferent	11	2.6	7	2.4	3	2.4	5	2.2	6	2.4	33	2.4
(2) Parliament Feedback	25. Welcoming/supporting	12	3.9	6	4.2	5	4.1	5	4.1	6	4.6	34	4.1
	26. Being indifferent	11	2.1	6	2.2	3	2.2	5	2.4	6	2.5	31	2.2
(3) Similar organization or competitors	27. following	12	4.5	8	4.3	4	4.4	5	4.5	6	4.5	35	4.4
	28. opposition/ competitor	11	2.2	6	2.4	4	2.1	5	1.8	6	2.3	32	2.2

Table 7.7 central government and parliament reaction about e-government of MoT

22- While a relatively high average of 3.5 attributed to government specialists (GS) may indicate a positive expectation from the central government toward MoT success, but low averages of 2.6 to 2.8 from other groups cannot uphold this anticipation. Considering the overall average of 2.8 we cannot attach a consensus on positive or negative government's response and role in diffusing e-government in this case.

23- Answers to this question, which has been designed to cross check the findings of the last question can obviously confirm that the reaction of government to MoT e-government initiative cannot be determined with certainty.

24- Average of 2.4 with a range between 2.4 to 2.6 in all groups can hint us that: although no strong agreement exists among respondents in terms of government reaction to the success of MoT however government cannot be neglected in the view of respondents.

25- High total average and also low deviant for this question can show a strong agreement over expecting support from parliament in initiation and diffusion of e-government.

26- This question which works to cross examine the issue in the last question regarding parliament reaction to MoT success, returned an average of 2.4 with a low deviant of 0.4. This can reconfirm that the parliament role to diffuse this strategy of e-government publicity will be positive.

27- High overall average of 4.4 and very low deviant of 0.2 obviously presents that all groups of respondent share this consensus that possibility of self diffusion of MoT experience is significant.

28- Although the deviant of the averages (0.6) is considerable, specifically between Mt by 1.8 averages and HA by 2.4 average, however TWA (2.2) can confirm findings of last question regarding self diffusion of the MT experiences. This can represent that possible resistance of competitors and similar organisations to reproduce or follow the role model organisation is not too strong.

Comments:

Assuming the central government as a full supporter or otherwise opposition to the MoT is not a rational thinking. This is because during two past periods of conflict between the government and the MoT were relating to the behaviour of one particular person, yesterday's Tehran Mayor and today's President who challenged not just the MoT but has clashed with the despite that in general MPs support him. This therefore can be considered as exception.

A negative and unwritten coalition against the city council and the municipality has existed between the parliament and the central government which refers to their rejection of a partner to share the power with. However the obligations of the state to improve and amend fiscal and executive system of municipalities can be a reason for providing the supportive resources for the MoT.

Making waves or inducing fashionable trends does not work as such in Iran. In particular when there is a political side to the issue and the issues is about adopting a global fashion both friends and enemies may follow it but the problem may re-emerge half way through. So if MoT tends to be a role model of e-governance inevitably it should consider implications from such move in the plan. This is because in the case of unknown and unwanted results and in the absence of central government in the project managing any crisis would be too difficult to handle if not impossible.

7.5.1 Discussion

The responses and comments explained in this part imply that although initiating e-governance and its diffusion without assuming a key role for the central government is not impossible however, when wider coordination of activities and participants are required in further steps to accelerate the process or apply modification or correction to the programme the objects may suffer from crises leading to delays and failure.

7.6 Part IV: estimation of the chance of collaboration between e-government stakeholders

In this part we attempt to make an estimation of the chance of collaboration between e-government stakeholders include MoT, IT communities and IT professionals in private sector, while absence of central government is assumed. The question begins with a quick reference to the e-government global benchmarking and a very short introduction to Iran e-government rank, and continues to question feasibility of e-government implementation in Iran regardless of government role or programs. This part of questionnaire is commonly responded by both MoT managers and IT professionals. The group included thirteen managers and IT professionals including two speakers for two IT and ICT communities, three managers of IT companies in private sector, three IT specialists with a close cooperation with MoT, and four IT managers who are engaged with IT governance in the central government.

Part IV: estimation of the chance of collaboration between e-government stakeholders	LM		HR		Mt		ITS		TWA	
	N	Av	N	Av	N	Av	N	Av	N	Av
29. MoT impact as the major partnership	11	4.2	7	4.2	5	4.5	13	3.2	36	3.9
30. IT sector partnership and initiative role	12	2.8	8	3.2	5	3.3	13	2.6	38	2.9
31. International organisation possible role	10	3.9	7	3.6	5	4.1	13	3.4	35	3.7
32. Reaction of central government against international organisation	9	4	8	3.2	4	3.1	13	3.1	34	3.4

Table 7.8 collaboration chance among e-government stakeholders of MoT

7.6.1 Question

29- Responding to the question that, whether MT without central government drive can play the coordinator role for alignment of IT sector and professionals around e-government projects returned a high average of 4.1. This can clearly demonstrate consistency across all respondents' views. Although the average IT professionals of 3.8 is lower than MoT managers of 4.5, however all the groups are supporting this idea that quality of support and aid of International organisation or aid organisations can play an important role in bringing together all IT professionals through a well-positioned and credited organisation such as MoT as the centre of the movement.

30- In this question, potency of non-governmental organizations to contribute to the concerned hypothetical coalition has been questioned. Considering the negative form of the

question, the obtained averages less than 3 should be assumed to represent more agreement on capability of those communities. Interestingly, while LM and ITS have shown their trust to private sector and IT professionals, HA and Mt do not hold same belief. Nonetheless in overall there exists an acceptable consensus on capability of private sector to contribute effectively in e-government project.

31- This question was on assessment of attitude of MoT managers and ITS in connecting and working with foreign aids. In general all groups returned an average of 3.5 which shows a strong consensus about value and effects of foreign technical and financial contributions.

32- The question was on the likely reaction of central government to international aids in forms such as joint venture or coalition in the absence of state organisations. The average of 3 although cannot give a clear message, however the response from this sample can draw our attention to the importance of bringing central government to the play.

Comments:

1. If an international organisation enters this programme providing linkage between objects of training and knowledge transfer to domestic organisations and e-government diffusion, the coalition could be shaped easier. The possibility of sustained coalition in this case may increase.
2. Without appropriate regulations to be developed for this coalition, the programme is very likely to fall in the trap of short term living.
3. MoT is not a local government, and maybe accounted as an independent service provider organisation. So the expectation for it to play as a government is not a reasonable demand. Hence the MoT with such legal position cannot play as the leader of e-government which inherently is very busy being tasked with multi missions, and is also a political unit.
4. The coalition could be set to be led and administered by a steering committee beyond the government not from within or independent of central government. If a powerful institution takes the lead through a long term investment plan it can find its proper position in the country.

7.6.2 Discussion

The idea of a coalition for e-government outside of the central government body in MoT although is new but existence of a medium level consensus on the proposition can be found

among related sectors and organisations. The suggested way is not straight forward, but the barriers are not institutional, and MoT can manage it even without any special regulation.

7.7 Overall discussion and conclusion

The questionnaire based study of the MoT and its stakeholders which was designed and conducted to evaluate indigenous condition for implementing e-government and to estimate diffusive effects of the successful implementation on state organisations led to a number of interesting and enlightening results as follows:

Necessity of organisational transformation from a local office to a local government within the horizon of Global city is agreed among key executive body of MoT. This integrated attitude is supported with an expectable trustful relationship between MoT managers across the three layers as well as IT stakeholders. Nevertheless, despite absence of managers in the process of choosing the technology- referring to Fountain's theory - technology enactment- some significant evidence can be found for possibility of participatory model of decision making in this organisation – for instance in the first FYP of MoT (2008) an expanded participation in different layers of management and specialists and council members have come to gether which could be a roper sample.

Similarly an estimate of flexibility within different structural layers and boundaries of the organisation can support the claim that there exists a positive attitude among most of all key players to contribute in the organisational transformation from hierarchical to a decentralised, privatised and participatory model of working. Hence, organisational rationality to approach a radical change either inside or outside the relations could be evaluated as an initial process toward critical juncture- start point of institutional change- and at this point, decisions of Mt to trigger organizational change can form the critical juncture. Rationality of the organisation here will adjust with Mt's benefits which in order to maximise their benefits are obliged to get involve with this modern solution. Herein although we cannot remove the problem of gap between rationality of organisation and personal interests, as Heeks (2006) suggests, however it can be predicted that Mt should support e-governance in further steps of implementation, because of increasing social demand and state players' needs.

Linking the achieved results and information gathered- i.e. strong consensuses among all respondents, coping with existing legal structure (such as Shora-Yari system, and the centralised mega city management)- in the presence of general inefficiency in current model of MoT management, we can conclude that by feeding the idea of e-governance into MoT (as

a Rational choice), triggered by e-government, theoretically self-reinforcing mechanism through environmental pressures - financial crises, state and social demand together with MoT obligations (path dependency)— will pave the way for the process of transformation toward e-governance.

Moreover by setting e-government- full potential- this self-reinforcing mechanism can come to reality either by utilitarian or power explanation approaches. Law makers (MPs) can be expected to support e-governance, because strong performance of MoT is in the favours of state's budget. On the other hand the idea can be a reference model for evaluation of the central government and pushing local managers to improve and upgrade themselves. Self reinforcement mechanism of MoT reform can be considered as an opportunity for the protection of the whole political system. The reason basically returns to the fact that oil income will not live forever and a functionalist explanation here can therefore offer the required reason to see why the state and other players, apart from the MoT, should support this innovative project in MoT to protect the whole system. Even if the move proves a challenge to the government and other agencies and despite considerable risk in this move, according to a utilitarian explanation, Mt and HA for continuing their status need to support this organisational and institutional change toward a standard Global city and denser social network.

The study supports the feasibility of MoT as a candidate for e-government implementation both in terms of paradigm shift- initiating step- and meeting e-governance outcomes- elements of complimentary steps. This study also confirms the opportunity of e-governance implementation throughout the state through a self diffusing mechanism.

7.8 Learning from the cases and their contribution to the conceptual model

Based on two rounds of filtrations —judgment of the advisory panel, and the study of six cases — the MoT was evaluated as an organization which through reducing its dependency from the state institutionally and increasing its involvement in the market and society has met some or most of the re-institutionalization and modernization criteria while being a role model organisation. In the in-depth case study stage we intended to understand whether this organizational change, which in fact was resulted from accomplishment of new organizational technology—NPM and Governance—through a change in path dependency, can be defused to its bigger institutional context? Whether “rational choice” theory can illustrate the response of manager and leaders within the MoT as well as IT stakeholders, or

rule makers when MoT approaches e-Government? How those players, which according to their own rationality are expected to attempt maximizing their benefits, can play a role in the new institutional arrangement properly and contribute to further duration of the initiative after fostering of e-Government in this organization? In other words, whether the provisioned organizational change can lead to other institutional changes by triggering e-Government and tracking towards Governance by “e”. As such, extensive implementation and application of e-Governance was the subject of in-depth case study in MoT. The study led to some conclusion on the whole sequence and the process of MoT adopting e-Government towards e-Governance, explaining how the theories and constructs of the research conceptual model are evident in the case of MoT. This is discussed in the following section.

A. **Initial condition:** Deviant from original context PA (Seq.1, B=Organizational Bureaucracy) because of intersection between “budgetary crises” and environmental pressure (Seq.3, Globalization wave) in the form of offering institutional adjustment by NPM also PA revision by ICT;

B. **Critical Juncture :** selection of trajectory towards NPM triggers T=NPM and e-Government, the status that according to “Self-Reinforcement ” and what happened in developed context, evidently, should consequently lead to modern organization by means of a better governance model.

C. **Sustainable Reproduction:** this is the sequence that originated from intersection of Seq.1 and Seq.3 on one hand with Seq.2 on the other hand. At this point another institutional arrangement, “Economic Development” that in general is a journey between Basic and Mature LAO similar to J=MLAO, has joined the other two sequences and resulted in the fourth sequence, Seq.4 –e-Government to e-Governance. This sequence although has not already been experienced in all countries, however theoretically is expected in both contexts as projected in typical Maturity models. Thus if a country or an organization could reach the point T in practice, it could, through a consequential chain, embrace X=integration and e-Governance as outcomes of this journey.

D. **Duration and proliferation:** Achieving of e-Governance in particular in developing context and organizational level may not be final the destination. Governance not only for Good Governance within PA but for economic development is also possible to expect. Diffusion mechanisms, both theoretically and practically could satisfyingly be brought to the account. Such mechanisms will influence the central state or local organizations even if they do not like to be in the play. This influence is due to two amalgamated strong waves one from

external and global sphere and another from the inside context, from one or several role model organizations. This process is demonstrated using dotted arrows in our model.

A narrative of application of the above model in MoT is as follows:

1. The intersection of under-developed, hierarchical, centralized and inefficient Public Organization-MoT-with NPM as a global and general solution: When the Iranian government because of the eight year war imposed on the country could provide the organization with sufficient governmental budget it resulted in a national consensus that;
2. the MoT should be authorized to provide its required resources by having a more freehand in designing and developing its operational regulations;
3. to execute this consensual task, the MoT leaders decided to apply a trade off between deregulating many of the construction activities and new channels for income. They also tended to marketize many of their previous free services and innovatively developed a list of marketable services. In practice this action was a kind of participation scheme between private sector, that perform the service, and the MoT which facilitates this action by licensing while those permissions were not accessible for all before;
4. to provide an incentive condition to motivate the private sector to play more, Mayors of the local areas in the capital were authorized, through a package of new authorisation from the Tehran Mayor, to erect semi private or fully private organizations for undertaking the tasks and jobs of the municipality;
5. through this wave of privatization and decentralization, derived from deregulation process and marketization approach embedded in NPM, a type of competition came to forth among local Mayors leading to close coalition and cooperation between MoT Managers on one hand and private elite organizations on the other hand;
6. this condition resulted in generalized open access to the rents that MoT was producing and consequently framed some new elite organizations, a situation which can be explained with Mature LAO;
7. This specific experience of NPM and some features of Mature LAO proved influential not only on other municipalities at national level, but on other state organizations with similar conditions in terms of tasks and regulations. It is estimated that the approach could finally affect more than 60% of Iranian who live in urban area;
8. This general wave has enforced the state to liberalization of PA management through introducing public electoral system for election of council members who then select the Mayors and act as rule making body at the state level :

9. This Liberalization, which was referred to as an inactivated item of the constitutional law, through other law and formal institutions resulted in a new experience of governance at national level, providing opportunity for general competition for more access to both economic and political resources, even among outer elite organizations;

10. Within this condition, the MoT has approached to implement e-Government but in form of service delivery.

The study was clearly providing evidence for supporting our hypothesis suggesting the possibility of a likely consensus inside the MoT and between IT stakeholders and MoT during a process where the state voluntarily or not joins the game and journey towards e-Governance. The study showed that the organization in the focus, MoT, is of a proper readiness internally and in its close surrounding environment to implement e-Government at full potential leading to e-Governance as well as diffusing the experience. The new organizational technology for governance will be introduced to other state organizations as an enabling package for development.

CHAPTER EIGHT

Conclusion

8.1 Summary of the research

E-Governance and subsequently e-Government as a bridge to remedy the development gap and a trajectory for escaping underdevelopment to a better position for developing states, has attracted attention of many researchers, particularly those from the third world. This in fact is in the light of the vast attention from all sorts of states from developed to developing as well as international governance organisations in the past few years to the matter. The researcher of this study has not been an exception considering the lifelong concern and over 20 years experience in state's offices from the Parliament to the central government. The motivation behind this work has been an ambition to find a reasonable and executable solution for a complex and difficult problem, having experienced and observed emergence and failure of theories and solutions within the state's plans and programmes and also leading a national project for the central government to design an e-government system.

The knowledge and experience of how rational and tested solutions and projects in developing states go astray and fail due to extensive weaknesses and out of control circumstances in one hand and the miraculous offerings brought about by the information and communication technology would lead any researcher of this subject to a paradoxical problem. The core question will be: "How can e-government be implemented in developing countries?" The first intuition was based on a mixture of a pessimistic view considering the context of the study, and an optimistic view considering the possibilities of ICT. To avoid confusion or repeating the main stream theories a cautious approach to the existing solution with an intention to find context and reality based answers was adopted.

The main theoretical assumption of the research in the beginning was that although the extant models and solutions have not lived to their promises and hence justify a negative view towards them but a step into these issue shows that the problem has mainly been how these solutions are implemented and executed not the solutions themselves. This would lead to appreciate that if a quality and comprehensive implementation of e-government is somehow assured and a way to make that happen is available, then the contradictory context (i.e the needed journey to modernisation in an unprepared environment) can be resolved. In fact the success of e-government to some considerable extent will depend on how well it can be

executed. This possibility relates to support from laws and regulations, prepared organisations and intent policy makers and executive body of the state. Such qualities may not be available naturally at state level for many reasons but if a part of the state has such qualities it can be envisaged that e-governance can be implemented in that particular part. This will open the hope for a diffusion effect to extend the experience through organisational learning to other parts of the state and finally the state (central government). The role of central government in this approach would be instigation of the move.

This view led the research to the second theoretical work of research on what kind of organisation can take such a lead and what properties and characteristics it should possess in order to succeed in this difficult mission. The proposition was therefore to find, in the absence of a prepared and capable central government and the requirements for achieving good-governance (e-governance), a ready organisation to implement e-government to full potential. This enactment of ICT should be followed based on an organisation wide consensus, plus a history of being a role model for other organisations to lead the state's move towards e-governance. This was called a phased or minimal e-government.

This research is expected to contribute to development of national and international strategies for ICT and e-government implementation in general and particularly in developing states (characterised with weak government and inefficient public sector). It would show how a global solution could be scaled down to fit a local problem.

Following an extensive review of literature on e-government and development related disciplines (globalisation, good governance, NPM, etc.) the research led to believe that most of variables and factors influencing successful implementation of e-government are of institutional nature. As a result it was concluded that the context of study and discussion should include both "institutionalisation" and "e-Government" issues simultaneously. This was because giving priority to the former could mean delayed implementation of e-government (due to time consuming nature of institutionalisation process), and bringing the latter first involves considerable risks for the state and the society. Conceptualisation of the ideas led to a possibility of a solution to introduce reforms in institutions in a relatively designed way with a reasonable confidence in its success.

8.2 Some concluding remarks

Assuming the values and functions offered by the idea and concept of e-government for strengthening the state (both developed and developing, with more focus on developing ones)

the research started with a realisation of complexities and risks and limited chance of success in developing states. Considering political, economical and social prerequisites for success and sustainability of e-government the research distinguished between the stage of entering e-government project, which seems a global issue, from the process of achieving full potential e-government (e-governance or good governance), which is very context specific. It was understood that common level of understanding and expectation of involved agents (people and organisations) in long term is critical in this, and that social and institutional background of the concerned society when e-government is considered as an exogenous paradigm should be considered.

Globalisation as a paradigm that has been seen with some level of suspicion by developing states, and as the result perceiving e-government as a model to fit other countries with the Western or Anglo-American model or package, should be seen as an inevitable rational way for modernisation of the state and society in any context.

This research has this message to decision makers at developing states that they should approach the project of e-government with sensitivity to consensus among the elements and stakeholders involved in this on the political-economical-social model of the society. Also sensitivity should be given to natural implications of full potential e-government (i.e. responsible government, change from hierarchical structure to social and network model, etc.) as nationalist views and centres of powers formed across the state could be potential points of conflicts of ideas and may disturb the conception of the movement during the implementation process. This means the problem deserves a more socio-political angle than techno-economical. In the same time technology related aspect is a critical issue too. This is because although such ICT plans are designed to improve processes and reduce the size of government but incomplete projects could mean unwanted and unpredicted costs for the state, and also define new areas for expenditure such as updating and maintenance.

The importance of state wide consensus on socio-economic-political model also relates to the society's attitude and strategy towards the Western hegemony, resistance and even confrontation to which can be traced in developing states. In the same line it should be reminded that attempting institutionalisation will have to happen around the paradigms developed and imported from the same source (West) as prerequisite for e-government. These prerequisites are usually not readily available in developing states nor possible to import or implement by design. Lack of the requirements of this sort then may be filled by

totalitarian models or weak social networks, leading them to follow the mean instead of the goal.

This research also recommends that despite realities, as explained in the above, the solution is neither ignoring the idea and overlooking the gifts of new technologies, nor starting without having the prerequisites (taking a big risk). Phased or minimal e-government is in fact a hybrid approach to technology enactment in which institutionalisation is applied at a limited level and extended to other areas. This strategy not only offers a model for testing the solution before committing the state resources to the cause, but can form an approach to devolution and governance for the state. The same approach may be adopted in achieving strategies for globalisation.

Considering the disruptive nature of ICT (and e-government) the study offers this recommendation to ICT sector and professionals to direct their devotion for assisting the state to achieve new borders of technology, and hence the solutions they go after, towards helping organisation with better chance of success. Also these actors of the e-government game should not wait for a miracle to bring reinvented government and instead direct their organisation towards a win-win situation to support organisations which can lead the way and diffuse the idea to others.

In such a move not only ICT sector and professional but the executive body of the state organisations as well as social and management scientists could get involved and come together to lead the way with or without the support of the central government. For instance one of the areas that desperately need attention by researchers is assessment of response from yet-to-form social networks (which could be anticipated to emerge naturally soon due to the quick expansion of Internet) to the project and its implications.

The model also can be found as a reference platform in research related to economic development issues in states which have lost their faith in continuously changing solutions offered by international organisations (i.e. UN), as a middle way solution worth supporting. It can support thinking on good governance as the other side of the coin of development, and provide a model of comparative assessment of costs and results/implications in developing states.

The research offers ICT sector companies criteria for selecting customers or collaborating organisations in which the risk of project success is low. Besides, the proposed approach provides a long term perspective for such experts in terms of public-private partnership and

achieving collaboration models for joint investment. Finding proper partners from potentially capable and intent organisations can lead to opening the market for ICT companies and ensure a safe return on their investment.

Finally the approach can lead to a new benchmarking model for national and international purposes and a fundamental revision of the IGOs' approach to assess and monitor e-government implementation and progress across the globe.

8.3 Future Research

The research to arrive at a practical view on implementability of e-government had to bring a number of disciplines together and in that way applied a number of research methods. The extent of issues and spread of matters considered in the research could only be conducted to the limits of the research time and resources. As a result not only some areas considered in the research could benefit from further and more in-depth study but a number of new ideas and issues have emerged as the result which should be put forward for future research. Some of the potential ideas to follow include:

The study produced a general framework for identifying an organisation to undertake the role of state for implementing e-government. Despite some general criteria suggested by the research it is difficult to generalise them to all countries due to various specifications and attributes they have in terms of geography, culture, history, social structure, etc. Further research is needed to develop more comprehensive models for identification of the candidate organisation to be applied as a generic model at all developing states.

It can be envisaged that a group or chain of organisations could be the candidate for undertaking the project of e-government/governance. This would work by adding to the number of points to stimulate for initiation of organisational level e-governance project which can connect in the process and form a chain to have greater diffusive impact.

The identified organisation for the case of Iran, Tehran Municipality, being the capital city has a vast number of stakeholders with different levels of impact. It is therefore necessary to extend the research to identify those stakeholders which can play more influential roles in the process of change management and management of the project. Such stakeholders include organisations responsible for civic activities, sports and leisure, traffic management, arts, social scientists, researcher and other socialites.

In the process of identification of the candidate organisation it is necessary to bring some other dimensions as the building blocks to the criteria model. These aspects basically relate to different paths that institutional changes can happen and different impacts and implication they can bring about. For instance which social groups could be interested and how they may impact the model should be further investigated.

Social and economic development of an organisation like the municipality of the capital city can have implications for immigration status in the state including the impacts upon life style, living standards and expectations of people. Providing capacities to respond to such demands require attention of social and political researchers.

Designing institutional changes in an organisation, as the target for implementing e-government, should follow a reference model for the state institutional status. Such model for the case of Iran was found to be unavailable. This can be subject of an independent research for political science researchers to identify the properties and aspects of this model.

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Iran Agriculture Bank :<http://www.agri-bank.com>

Saman Bank: <http://www.sb24.com>

Kish Free Zone: <http://www.kish.ir>

National Iranian Oil Company: <http://www.nioc.ir>

Municipality of Tehran: <http://www.tehran.ir>

Ministry of Road and &Transportation: <http://www.mrt.ir>

Automotive Industry include:(Iran khodro <http://www.ikco.com/Fa/Default.aspx>. and Saipa: <http://www.saipacorp.com/en/>)

Police Force: <http://www.police.ir>

Ministry of energy <http://www.moe.org.ir>

Social Security Organisation: <http://www2.refah.gov.ir>

Ministry of Commerce: <http://www.moc.gov.ir>

Iran National Tax Administration: <http://www.intamedia.ir>

Management and Planning Organisation of Iran: <http://tec.mporg.ir/>

APPENDIX

The questionnaire for the study of e-Government potential and readiness of “Tehran Municipality”; An organizational readiness perspective

Section One

Two main preconditions for e-government implementation in full potential are: (1) Mutual trustful relationships between government and citizen, and (2) integration in the government organisation.

1. The two phased process of mayors election (people elect council and the council elect the mayor) in Iran can be regarded as a totally democratic stage where these politically very important and competitive positions depend on people’s votes. This has shaped an extraordinary space in which the competition between factions is now shifted to be based on better service delivery and closer relationship with people. With this in mind please answer the following questions:

1.1. The mayor election model and system has been subject to changes and political evolution in recent decades. However the trend has been and is towards improvement and more democratisation leading to increasing dependence of the council, the mayor and his team on citizen satisfaction driving them to consider working harder for gaining people’s through providing better service;

Agree completely Agree without side Abstention Disagree Disagree completely

1.2. Despite the particular structure of the municipalities in which a combination of different cultures and priorities of key governors and operatives (leadership coming from political space out of the organisation; middle managers and specialist from inside the organisation inside, and a huge body of advisors and contractors from private sector) have to work together and hence the likelihood of conflicts and inefficiency, there is a considerable trust based organisational environment in the Capital’s municipality in governing the city especially on strategic issues.

Agree completely Agree without side Abstention Disagree Disagree completely

1.3. Although political motivations may be assumed as main reasons behind the evidently extraordinary successful performance of the municipality in service delivery however in practice this has led to a unprecedented levels of efficiency and consequently trust building.

Agree completely Agree without side Abstention Disagree Disagree completely

1.4. The recent Council and Mayor’s suggestions for formation of official local non-governmental bodies for participating in decision making and monitoring of the council in one hand and delegation of considerable volume of government’s duties to the council are positive signs of increasing Reciprocal Trustful Relationships between parties.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions:

2. **E-government implementation is highly dependent on two factors: “Technology(ICT) enactment” in a collaborative environment as a cognitive process to deploy the appropriate type and level of technology; re-engineering and re-designing organisational role, goals, strategies and consequently working processes. In this process a number of factors including vision and style of leaders on globalisation and governance in harmony with other key players, budget, and technological capabilities are playing key roles. In the light of this it is evident that the information system of the municipality has been under construction but not based on the target of e-government full potential. It seems that the undergoing e-government project capability is located between 2nd and 3rd step of UN implementation model and hence requires much more financial investment and internal reform.**

2.1. Strategic intention for introducing major changes within the organisation towards deploying new strategy and technology (suitable for 3rd step) and to manage the organisational resistance exist among key players.

Agree completely Agree without side Abstention Disagree Disagree completely

2.2. The approaches and performance of Tehran’s Mayors during the past 10 years show a strong tendency and readiness of the Mayors and his team to engage in a process of a bottom- top organisational reform (necessary for passing 3rd step requirements)

Agree completely Agree without side Abstention Disagree Disagree completely

2.3. Although migration to 3rd and 4th step requires a large financial investment (comparable to a city major highway or tunnel) and advanced technology together with software requirements, the Tehran municipality seems to possess required resources as well as leadership and management capabilities to provide and manage the steps.

Agree completely Agree without side Abstention Disagree Disagree completely

2.4. Maintenance and updating of e-government systems (such as e-procurement) is not justifiable as an internal operation economically and technically, or at least is highly dependent on entities out of the organisation. Tehran Municipality (Council, Mayor and his team) are prepared to approach outsourcing and partnering with external bodies (especially private sector) for managing sensitive systems of e-government.

Agree completely Agree without side Abstention Disagree Disagree completely

2.5. The Iranian home grown private sector (in ICT and systems management) do not have the required capabilities and readiness to engage with Tehran Municipality for developing, managing and maintaining e-government systems even if the municipality leaders are fully prepared to collaborate and outsource the operations.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions.

3. One of the ways that a capital city could institutionalise itself and play a role model of good governance for central and local governments, is approaching modernisation based on global best models or practices. Shifting to adopt “Global City” characteristics and features as a global paradigm into a national organisation is one of these models. Adopting this model the municipality can provide services (such as e-government) at a world class standard to citizens and foreign nationals as investors or visitors which will be recognised and supported by high policy makers, the organisation itself as well the citizens. Furthermore this platform will be able to provide an effective example of a governing system for managing and monitoring international trade of the whole country.

3.1. Intention to consider and promote Tehran as a “Global City” is evident from the municipality leaders’ comments, style and actions within the national debating and policy system.

Agree completely Agree without side Abstention Disagree Disagree completely

3.2. A considerable part of Tehran’s municipality services are provided reasonably close to international standards of “Global City”.

Agree completely Agree without side Abstention Disagree Disagree completely

3.3. Although Tehran city and its municipality have the required conditions for being/becoming a global city (necessary condition), the sufficiency conditions such as supportive laws and regulations, unified/integrated civic administration system, and primary investment abilities as well as government and parliament support and collaboration are not available for Tehran municipality at the moment.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions:

4. Terms “Virtual State” and “e-Governance” are known as two new approaches for developing and improving *social capital* as means of eliminating institutional barriers of development for nations, organisations and communities. Both models have been known to be highly dependent on the leaders’ and elites’ intention as well as citizens’ participation. Please answer the following question in this regard:

4.1. Such intension can be found strongly in Tehran municipality leaders and key management

Agree completely Agree without side Abstention Disagree Disagree completely

4.2. Tehran’s municipality middle managements strongly support this approach and the leaders.

Agree completely Agree without side Abstention Disagree Disagree completely

4.3. Since most of municipality issues are of technical and operational nature solutions for which are usually available and easy to access, it can be said that issues such as citizen participation in decision making process is more a symbolic gesture and political slogan than real need or possibility.

Agree completely Agree without side Abstention Disagree Disagree completely

4.4. Although there is no shortage of elites, specialists and active people for participating in (Tehran Municipality) decision making process, but the processes (including decision making) of the municipality are so extensive, complex and politically orientated, which could limit participation of its own leaders and managers let alone the external entities.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions:

Section two

Assumptions and Considerations:

- **Currently E-government project is not a priority for the central government (not in its formal strategies deceleration);**
- **Semi-governmental organisations, which have a special structure and somehow flexible working space, have a better chance to successfully undertake implementation of innovative or comprehensive/complex projects (such as e-government) regardless of national institutional conditions;**
- **Successful full potential implementation of e-government in an important semi-governmental organisation with influence and national reputation can be expected to play as a role model and benchmark followed by other agencies**
- **Tehran municipality in a partnership with IT, IC, ICT private sector and communities can be accounted as one of the candidates for e-government implementation in this research.**

Please answer the following question in this regard:

1. Assuming the municipality leader's intention it is realistic to say that the technical/technological capabilities required for this purpose can be provided by ICT companies and communities (associations) in partnership with international organisations and their financial and technical aids.

Agree completely Agree without side Abstention Disagree Disagree completely

2. National ICT communities and companies have not sufficient financial strength to compensate for the lack of adequate state investment in very expensive e-government projects.

Agree completely Agree without side Abstention Disagree Disagree completely

3. Municipality have other priorities lie in other areas such as eye-catching infrastructural projects and service delivery rather than exposing its organisations to complex and challenging work of technology enactment. Consequently such a project can only be possible through either external pressures from policy and governance sector or international strong incentives and aides.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions:

Section three

Despite considerable attention and aides from international organisations such as UN subdivisions to facilitate e-government implementation in developing countries, being a very costly infrastructural project and in the absence of strong non governmental organisation to handle the work central government are usually designated as the main host or handler of the project. As a result other existing bodies out of the central government, such as independent public organisation or IT, ICT communities or companies are excluded and not engaged in the process.

Please answer the following question in this regard:

1. The chance of e-government implementation an success would be increased if the international organisations' aids and guidance could be shifted and focused on relevant but somehow independent governmental organisations , communities and private stakeholders of IT and ICT .;

Agree completely Agree without side Abstention Disagree Disagree completely

2. Even if the municipality, as the one of the above mentioned independent organisation, is ready for taking up the coordination role the ICT community and private sector do not have sufficient readiness for this purpose and participation.

Agree completely Agree without side Abstention Disagree Disagree completely

3. International organisation would not get engaged with organisations at micro level and such volume.

Agree completely Agree without side Abstention Disagree Disagree completely

4. The central government will not allow such cooperation of communities or independent organisations with international bodies.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions:

Section four

If we assume that it is possible to implement some advanced model of leadership and good governance successfully in one of the regional, local or semi-governmental organisation, without central government pre-authorisation, please indicate your views based on your experiences with government on the possible reactions from the concerned entities as follows:

1. Central government and executive branch

1.1 They embrace and welcome this innovative initiative and try to disseminate the practice to other similar organisation including central units of government through policy and incentivising.

Agree completely Agree without side Abstention Disagree Disagree completely

1.2 Considering the role of the central government in this the move will be dealt with as a competition or suspicious activity and will be challenged by different units of government;

Agree completely Agree without side Abstention Disagree Disagree completely

1.3 The government will be disinterested or neutral to the move

Agree completely Agree without side Abstention Disagree Disagree completely

2. Key policy making authorities such as parliament and council of expediency and preserving the constitutional)

They embrace and welcome this innovative initiative and try to disseminate the practice to other similar organisation including central units of government through devising policies and activating laws and regulations.

Agree completely Agree without side Abstention Disagree Disagree completely

3. Similar units with a somehow independent

3.1 They will learn and follow such successful experience as they will find themselves under pressure of expectations from internal organisation, policy sector and stakeholders, and will see the situation as a space for competition.

Agree completely Agree without side Abstention Disagree Disagree completely

3.2 They will oppose it seriously.

Agree completely Agree without side Abstention Disagree Disagree completely

Please add any comments you may have regarding the above questions: